The year 1992 was a great year. I had just completed my residency and was beginning my fellowship in Obstetric Anesthesiology. I also had just finished my written exam for board certification so I found some free time to read and to watch television. Television proved to be extremely alluring as it was time for the Summer Olympics in Barcelona. Every news report suggested that this Olympics would be exceptionally exciting. Despite the numerous medals awarded, I still remember an athlete who did not receive a medal. It was this person and the events surrounding the race that formed my viewpoint of professionalism.

Derek Redmond was a 27-year old athlete from England, participating in the 400 meter race. He had been performing well and qualified for the semi-finals. While rounding the bend, he tore his quadriceps muscle, rendering him unable to run and barely able to walk. Immediately following the injury, he stood up, limping his way to the finish. He was determined to complete the race. While I was impressed by his Olympic Spirit, it is the events surrounding the completion of the race where I learned about professionalism and the type of individual I would like to become. Following the injury, Derek was approached by two men. One was an Olympic Official who informed Derek that he should stop and not continue as he was risking further injury. The other man had to push his way through security to reach Derek. This man was his father who had the following exchange: “Derek, you don’t have to do this”, “I need to finish”, “Then we will finish together.” Derek’s father had to wave off others who kept telling him he should stop and that he should step off the track. Derek, with his father’s help, finished the race. If you haven’t seen the video, google Derek Redmond, and be prepared for your eyes to water.
Dear SOAP Members,

Can you believe that the 47th Annual Society for Obstetric Anesthesia and Perinatology Meeting is a little more than 2 months away? If you haven’t made arrangements, now is the time to register for a meeting that promises to deliver educational content with a theme of “The New Role of Education in Obstetric Anesthesia - Educating the Clinician, Trainees and the Public” all within the backdrop of a popular award-winning resort.

So, let’s start with the meeting location. The meeting will be held at the Broadmoor Hotel in Colorado Springs, Colorado. The hotel is located on more than 3000 lush acres under the shadow of Cheyenne Mountain and is the longest-running consecutive winner of both the AAA Five-Diamond and Forbes Travel Guide Five-Star awards. It was also recently named Golf Magazine’s #1 Golf Resort in North America. The hotel was built in the early 20th century as the “Grand Dame of the Rockies.” Wi-Fi will be available if reservations are made through SOAP.

Although this year’s meeting location is a once-in-a-lifetime opportunity for your family and friends, you will not only benefit from superb educational activities, but will experience the resort! The Broadmoor has an award-winning spa, as well as 19 restaurants, Cafes, and Lounges (including the only Five-Star, Five-Diamond restaurant in Colorado, Penrose Room). Plus, your friends and family can enjoy 54 holes of championship golf, six tennis courts, indoor and outdoor pools, distinctive retail shops, and activities for all ages and interests. In addition, Colorado Springs is home to the Air Force Academy and the Olympic Training Center, as well as Pikes Peak! Finally, The Broadmoor offers guests a unique way to experience the beauty of Colorado.

If it’s a great resort, you may be wondering about the educational content. Pre-meeting workshops will open the meeting. They will be held on Wednesday, May 13th, 2015. New this year! A MOCA Part IV course will be available for up to 12 participants. The course is a full day of immersive simulation education and will be held at the University of Colorado School of Medicine in Denver. Overnight accommodations will be available adjacent to the Anschutz Medical Campus (AMC) prior to the workshop at Springhill Suites. Direct charter bus service to Colorado Springs will be available from the AMC to Colorado Springs.

Given the popularity of the ultrasound workshops presented in previous years, we will continue to offer comprehensive workshops on the use of ultrasound for obstetric anesthesia and transthoracic echocardiography. Jose Carvalho, MD and John Sullivan, MD will lead these sessions. In addition, there will be a faculty professional development and education workshop lead by Libby Ellinas, MD.

All of these pre-meeting workshops will be held in Colorado Springs on Wednesday, May 13th.

The “Welcome Reception” will be held outdoors on the Lakeside Terrace of the Broadmoor on Wednesday evening highlighting the scenic breathtaking views of this world famous resort.

Annual Meeting Update continued on next page
The Gertie Marx research competition session moderated by Richard Smiley, MD, will be the opening session on Thursday, May 14th. This competition presented by trainees promises to deliver cutting-edge research and is an annual SOAP meeting favorite. Following this session, William Camann, MD will receive the Distinguished Service Award. The Gertie Marx/FAER Education Lecture will be presented by Fred Hafferty, PhD who will speak on “Professionalism and the Hidden Curriculum.” In addition to the SOAP Business Meeting and Elections, the meeting will incorporate three moderated poster sessions, two moderated oral presentation sessions and three special poster walk around discussion sessions. A MOCA accredited Maternal Safety panel moderated by Jake Beilin, PhD will highlight Elliott Main, MD, Director of the California Maternal Quality Care Collaborative who will talk about the National Maternal Health Initiative developed Maternal Safety Bundles on Obstetric Hemorrhage, Hypertension in Pregnancy and Prevention of Venous Thromboembolism in Pregnancy. Jill Mhyre, MD, will also present the Maternal Early Warning Criteria.

Friday, May 15, 2015 will start off with an optional yoga class. The first session of the day will be the Best Paper Session moderated by Lawrence Tsen, MD, followed by the Gertie Marx Grant Recipients’ Update where Brian Bateman, MD will present his research findings. Lynn Barbour, MD from the University of Colorado School of Medicine will present the What’s New in Obstetric Medicine 2015? on “Intrauterine Factors Fueling Trans-generational Obesity.” SOAP is honored to have Warwick Ngn Kee, MD who will present the Fred Hehre Lecture entitled “Reflections on the Evolution of the Management of Hypotension during Spinal Anesthesia for Cesarean Delivery.” An open Friday afternoon is available to you to enjoy the resorts amenities including golf, hiking, horseback riding, and line gliding. Don’t miss a chance to visit the Olympic Training Center or take a trip to Pikes Peak. The day will conclude with the traditional SOAP Banquet.

As if one yoga class wasn’t enough, Saturday, May 16, 2015 will begin with another optional yoga class and the always ever popular SOAP favorite 5K Fun Run-Walk around. An optional Breakfast with the Experts session on “Headache, Hemorrhage, and Preeclampsia” will be moderated by David Wlody, MD. An Obstetric Anesthesia Education Panel on “All Anesthesiologists are Educators at Heart” will be presented by Rita Patel, MD who will discuss the role of Graduate Medical Education, Robert Gaiser, MD will discuss an evidenced based approach to teaching Obstetric Anesthesia, and May Pian-Smith, MD will present on how to best teach our patients about obstetric anesthesia. Katherine Arendt, MD will present the ever popular Gerard W. Ostheimer Lecture. Timothy Crombleholme, MD, Professor of Surgery, University of Colorado School of Medicine and The Ponzio Family Chair for the Surgeon-in-Chief at Children’s Hospital Colorado will discuss the most recent advances in fetal surgery. Roshan Fernando, FRCA from the University College London Hospitals will present findings from the accepted 2015 research meta-analyses abstracts. The day will conclude with a Research Hour entitled “Research Applications/Opportunities with Non-Invasive Cardiovascular Monitors” presented by Richard Smiley, MD, Phil Hess, MD and John Sullivan, MD.

On Sunday, May 17, 2015 there will be a Chronic Pain Panel including Pamela Flood, MD, Ruth Landau, MD and Inna Belfer, MD, PhD who will discuss the most recent advances in the “Prediction, Prevention, and Genetics of Obstetrical Pain.” A MOCA accredited patient safety Pro-Con Debate on the use of Nitrous Oxide for labor analgesia will be presented by Manny Vallejo, MD who will present Pro and Robert McKay, MD will present Con/against the use of nitrous oxide as an analgesic technique for labor analgesia. The meeting will end with the popular Best Case Reports Review moderated by John Sullivan, MD, who is the scientific chair for the 2016 SOAP Annual Meeting to be held in Boston, MA.

Why attend SOAP 2015? Because it will be an outstanding learning opportunity in an exciting and award-winning location! Besides a multitude of educational opportunities, attendees can network, experience new sessions, and participate in extraordinary social events. This is a SOAP meeting that you shouldn’t miss. You have our commitment that this will be a SOAP meeting to remember. Join us May 13-17th in Colorado Springs at The Broadmoor!
President’s Message continued from page 1

When I approach a colleague in need, I have two choices. I can be the one saying you can’t do it or I can be the one there to help. Who are you when you see a colleague who just had an unanticipated adverse outcome, who has trouble at home, or who has an issue with substances? We do have a choice and I try to be the Derek’s father who is there to help the person finish but not to finish it for them. This step is really the first in professionalism, as professionalism may easily be summarized as being there for one another.

This is my last President’s Message. I want to thank you for giving me the opportunity to serve this organization. I encourage you to attend the 47th Annual Meeting in Colorado Springs. I could tell you it is because of the superb workshops, the outstanding lectures, or the great science. However, the real reason is that I would like to shake your hand and say thank you in person for providing me with one of the greatest opportunities of my life.

Sincerely,

Robert R. Gaiser, MD
President, Society for Obstetric Anesthesia and Perinatology

Advances in medical treatment have allowed us to live longer lives and helped people avoid disability and suffering. In obstetric practice, we have observed a marked reduction in maternal and infant deaths worldwide. These accomplishments are based on the continued pursuit of science in medicine and the dissemination of knowledge obtained. The theme of our upcoming annual meeting is dedicated to education in Obstetric Anesthesia, a component of our society’s mission that has seen significant advances in recent years. In 2011, Alan Santos announced that the ACGME accreditation of the Fellowship in Obstetric Anesthesia is final. Since then, many programs have achieved ACGME accreditation status and in 2015 we will participate in a national matching program to fellow applicants, all indicators that the Society for Obstetric Anesthesia and Perinatology is taking education seriously.

John F. Kennedy once indicated that “the goal of education is the advancement of knowledge and the dissemination of truth.” In many ways this statement applies to the practice of anesthesia for the pregnant patient. It took almost a century to overcome unfounded fears about the effects of labor pain relief. Eventually it was the pursuit of science and the dissemination of knowledge that contradicted commonly held beliefs that neuraxial blockade would result in a higher incidence of operative delivery, interfere with breastfeeding and maternal bonding or even cause fetal harm through maternal fever.

However, we are also witness to a change in the health care environment where physicians and other health care workers have become a labor force that is governed by corporate interests, regulatory mandates and medico-legal compliance rules. This milieu has put a new strain to many anesthesiology practices and proven detrimental to the pursuit of discovery in anesthesiology. It will take great leadership and the type of dedication and perseverance that Derek Redmond in the 1992 Olympics (see president’s message) displayed to allow us to continue making advances in all aspects of the medical practice of anesthesiology. Let us be the forerunners in this effort.

Greetings,

Michael Froelich, MD, MS
Birmingham, AL
The Obstetric Care Consensus: Levels of Maternal Care is a jointly developed document by the American College of Obstetricians and Gynecologists (ACOG) and the Society of Maternal-Fetal Medicine (SMFM). The Committee on Obstetric Anesthesia and the Society for Obstetric Anesthesia and Perinatology (SOAP) Board of Directors reviewed, provided comments, and supported this document. Multiple other organizations, including the American Academy of Pediatrics (AAP), the American College of Nurse-Midwives (ACNM), and the Association of Women’s Health, Obstetric and Neonatal Nurses (AWOHN) also reviewed and supported the document.

Levels of Maternal Care Overview
Currently, the United States is 60th ranked in the world for maternal mortality. Thirty-nine percent of hospital births in our country occur at hospitals which deliver less than 500 babies per year, and an additional 20 percent occur at hospitals which deliver between 501-1000 babies each year. This endeavor simply put is an effort to reduce the morbidity and mortality of maternal care in the United States. The document: 1) introduces uniform levels of maternal care-complementary but distinct from neonatal levels of care-that address maternal health needs; 2) develops standardized definitions/nomenclature for facilities providing each level of maternal care; 3) provides consistent guidelines according to level of maternal care for use in quality improvement and health promotion; and 4) fosters the development and equitable geographic distribution of full-service maternal care facilities and systems that promote proactive integration of risk appropriate antepartum, intrapartum, and postpartum services.

What are the Levels of Maternal Care?
• Birth Centers
• Level I Basic Care
• Level II Specialty Care
• Level III Subspecialty Care
• Level IV Regional Perinatal Health Care Centers

The definitions of these levels include the escalation of care, availability of appropriate personnel, increased resources (technology and equipment), and the well-defined threshold and mechanism for transferring care to a higher level. The inclusion of the availability of anesthesia services and the special training or experience in obstetric anesthesia of the anesthesiologists follows a natural progression through the levels. Within these levels, an opportunity to create equitably distributed resources throughout the country impacting the implementation for regionalized perinatal care is presented. Importantly, levels of maternal and neonatal care may not match within a facility. That being said, a pregnant woman should be cared for at the facility that best meets the needs of both mother and child.

Highlighted Summarized Recommendations
The document includes many recommendations in an effort to improve the quality of maternal care in the United States:

1. The development of a classification system based on the levels of maternal care in order to standardize a complete and integrated system of perinatal regionalization and risk-appropriate maternal care
2. The establishment of levels of maternal care that are complementary to but distinct from levels of neonatal care
3. The establishment of clear, uniform criteria for designation of maternal centers which are integrated with emergency response systems that will facilitate subsequent data collection regarding risk-appropriate care
4. The collaboration by facilities to maintain transfer plans in order to obtain the highest levels of care required by our pregnant women (Facilities should have a clear understanding of their capabilities to handle increasingly complex levels of maternal care and a well-defined threshold for transferring women.)
5. Higher-level facilities should provide training for quality improvement initiatives, educational and maternal mortality review for lower level hospitals.
6. The development of methods to track severe maternal morbidity and mortality to assess the efficacy of utilizing maternal levels of care

ASA Committee on Obstetric Anesthesia Update
continued on next page
7. The utilization of the analyzed collected data from all facilities to aid in future updates to the levels of maternal care

8. The exploration of the implementation needs to adopt the proposed classification system for levels of maternal care by inter-disciplinary working groups

Everyone involved in the process of the consensus statement hopes that the effort to create a blueprint successfully improves the quality of maternal care in our country. Only time will tell if this goal is met.

THANK YOU:

To the ASA for their support of the subspecialty societies

To the committee members and the SOAP board of directors for their hard work and dedication to women’s health

References:


The Bylaws of our Society require prior notification of our membership before any amendments to the Bylaws can be considered at our business meeting. The following changes have been considered and approved by our Board of Directors, and will be submitted to the membership in Colorado Springs. New language is in **boldface**.

The first change involves the composition of the Executive Committee of the Board of Directors. In addition to the Secretary, Treasurer, and Delegate to the ASA, the entire Presidential succession track serves on the Committee, with the notable exception of the Second Vice President. As there is no logical reason to omit this future President of the Society from the Executive Committee, the following change is submitted for your consideration.

10.1.1 EXECUTIVE COMMITTEE:
Chair: President. Other members: Immediate Past President, President Elect, First Vice President, **Second Vice President**, Secretary, Delegate and Treasurer.

The second change involves the selection of the Annual Meeting Site and the Meeting Host. It has become increasingly difficult to deal with all of the important issues before our Society in the limited time allotted to the business meeting. For this reason, a Bylaws change has been proposed which would allow the selection of the meeting site to be made by our members electronically prior to the business meeting. The meeting host would then be selected by ballot at the business meeting from a list of candidates selected by the Board. Nominations for host could also be made from the floor.

11.0 THE ANNUAL MEETING
11.1.1 The Annual Meeting Host and site shall be chosen by a secure electronic vote through the SOAP website single majority vote at the Annual Business Meeting from a list of options approved by the Board of Directors. (See footnote #2)

11.1.2 Nominations for meeting sites will be accepted from any active SOAP member beginning at the conclusion of the prior Business Meeting. Nominations will be closed October 1 to permit SOAP administrative staff sufficient time to investigate potential sites prior to the SOAP Board of Directors meeting held at the Annual Meeting of the ASA.

11.1.3 The Board of Directors will select two potential meeting sites for submission to the members of the Society.

11.1.4 All active members of the Society will be notified by e-mail of the potential meeting sites by December 1, including a detailed description of the hotel, local attractions, climate, and accessibility of the site by air transportation.

11.1.5 Voting will last for a period of 14 days, to begin no earlier than January 1 and no later than 90 days prior to the Business meeting. The winner will be the site receiving the largest number of votes.

11.1.6 Upon verification of the winning site, the Board of Directors will select candidates for the position of Meeting Host. Candidates for this position may also be nominated from the floor at the Business Meeting.

11.1.7 The Meeting Host will be chosen by a majority of voting members present at the Business Meeting. (See footnote #2)

Footnote #2 of existing bylaws

If three or more candidates are nominated for a single position, the winner will be chosen in a single “instant runoff vote”, which shall be conducted as follows: voting members present and voting at the Annual Business Meeting of the SOCIETY will be allowed to vote for a maximum of three candidates for any one elected position. These votes will be ranked in order of preference as #1, #2, and #3. If no candidate receives a majority of #1 votes cast, the candidate with the fewest #1 votes is eliminated and those voters’ #2 votes are distributed among the remaining candidates and the total votes are recounted. The process continues until one candidate gets a majority of the votes.
Systems and Processes.

The Education Committee serves you, the membership, in many ways. The committee works using a team-centered approach, with all members helping grade SOAP Abstracts, contributing articles to the SOAP Newsletter, and developing informational and program materials. In order to help improve the functioning, committee membership will transition to staggered 3-year appointments, from the open-ended membership in the past. This will allow some fresh new faces to participate and begin society mentoring of our younger members, which is critical for the long-term vitality of SOAP. Mentoring improves performance and aides career development. After becoming Chair of the Education Committee, I examined our systems and processes, seeking ways to improve the Committee functioning in order to best serve SOAP. I obtained Education Committee and then Board of Directors approval for the staggered 3-year term process over a year ago.

In addition, resident/fellow 2-year appointments have been added. I recently started the resident/fellow initiative, with the support of Dr. Gaiser President and Dr. Vallejo President-Elect, to encourage more resident/fellow input into the Education Committee - both for their viewpoint on what types of educational ‘products’ would be desirable, and for their contributions to the committee. Diversity of opinions (including age-related perspective) improves the work of the committee, SOAP, and ultimately benefits you, the membership. We welcome fellows Naola Austin from Stanford (OB Anesthesiology and Simulation Fellowship), and upcoming OB Anesthesiology fellows Michael Lee from Northwestern, Holly Briggs from Brigham, and Taizoon Dhoon from Cedars-Sinai.

May Pian-Smith, Richard Month and Grace Shih are the chairs of Education sub-committees of awards, information and programs, respectively. K. Grace Lim has also led development of PBLD questions and answers suitable for fellowships. Pending final BOD approval, the education committee will be writing questions and supported answers for a joint SOAP-ASA CME project, which will create another source of education and revenue for both societies.

If you have topics you would like to see the education committee explore, please email me – Mark.Zakowski@cshs.org. On behalf of the Education Committee, we look forward to another great year serving you and SOAP.
Can I Have Some Feedback
Rebecca D. Minehart, MD* and Mark I. Zakowski, MD**
*Massachusetts General Hospital, Boston, MA
**Cedars-Sinai Medical Center, West Hollywood, CA

Introduction

The SOAP Education Committee article by Dr. Minehart on “Improving Feedback” brings to the forefront the important topic of HOW do we educate our residents, faculty, and ourselves using current ‘best practices’. Do you recall those lectures where you learned a lot, or not at all? We have all had teachers that have had negative influences on us as well as good teachers and those rare ones that served as a motivating springboard, moving us to new levels of achievement or enquiry. Students as well as teachers have different personalities and process information differently (e.g. auditory, visual, kinesthetic). Do you know yours? What is the best way to teach or to be taught? Few students would benefit from the teaching methodology illustrated in the Oscar winning film, Whiplash. Consider a concept we can all benefit from, what I call the ‘platinum rule of teaching’ – to teach the student in the manner they will best learn. So I am honored to introduce this article on education by Dr. Minehart discussing the important topic of HOW to teach by giving feedback via a novel (and scientifically validated) method known as “Advocacy/Inquiry.”

“Can I have some feedback?” As a resident, I remember a time when I struggled with the information that came from my attending. Sometimes the “feedback” was hollow praise that felt meaningless or a biting remark that stung for days and from which I never have fully recovered. Sometimes I felt that my attending knew more yet didn’t want to share, which made me resentful. Only rarely was I engaged in a true conversation, which I craved —so much in fact, that I ached to share my side of the story, to fill in the gaps of my meaning to what they saw. Yet I stood mutely, as that was my understanding of my role in receiving the feedback I so desperately sought. Only much later in my training would I hear feedback that was not only direct and specific, but also supportive; where my teacher wanted to hear my side, in order to start our conversations in a deeper and more reflective way, allowing me to develop in a much richer way professionally. This type of feedback conversation, known as “Advocacy/Inquiry,” is a common style of communication that Rudolph et al. popularized for debriefing in simulation (1), but which is equally effective when applied to teaching in the clinical setting of giving feedback as well. After only a brief training period using “Advocacy/Inquiry,” attending physician anesthesiologists gave feedback more effectively and efficiently (2), allowing the teacher to “diagnose” and understand the student’s reasoning, rather than making assumptions (often incorrectly) at what drives the student’s actions and behaviors and thus providing suboptimal feedback, teaching and learning. The Advocacy/Inquiry technique helps ascertain the sometimes deeply-rooted beliefs held by the student (or teacher), which will persist if never examined through insightful guidance. This conversational process eventually leads to more profound and longer lasting understanding and behavior modification than a simple “Don’t do that again!”

Advocacy/Inquiry basics are easy to learn but may be more challenging to master – yet ultimately worthwhile for improved teacher/student satisfaction, educational effectiveness and time efficiency. Advocacy/Inquiry combines intellectual curiosity, respect for others and the teaching process, and frees you from assigning “ulterior motives” to observed behavior. The student and the teacher share their viewpoints, and both sides benefit by dispelling incorrect assumptions and any “ulterior motives,” greatly enhancing the learning process. This advanced educational interaction derives its unique conversational strategy from decades’ worth of organizational behavior, cognitive psychology, action science, and business disciplines (3-5) based upon holding the student in high regard, yet also holds him or her to high standards. The technique itself seems benign and simple on the surface, but due to its compactness and delivery, the style goes against all politeness training that we in North America and many other countries have experienced (6). Therefore, understanding and practicing each step is key. Distilled down, the essence is: “I saw/heard, I think, I wonder...”.

As teachers, we must observe and comment on a student’s actions or behavior without making assumptions about their motivations. As humans we unconsciously assign meaning to all our experiences; yet by assigning meaning prematurely, we risk extrapolating too much. The “Ladder of Inference” created by business theorist Chris Argyris serves as a schematic representation (5). Argyris advocates that we need to go directly to the “raw” data, the “I saw/heard...” step.

In the second step, the teacher openly but calmly states what the teacher thinks of the action/behavior, addressing the fundamental question, “Why are we talking about this? What consequence does it have for me as a student?”

Can I Have Some Feedback? continued on next page
Otherwise the message to the student is ambiguous and the student, uncertain, will be left with only our nonverbal cues (7), searching for any meaning and running up his or her own Ladder of Inference. By revealing the teacher’s thoughts and feelings, the concerns or the praise, honesty and trust between the two are promoted. This is known as the “I think...” step. Finally, in the third step, the teacher must ask a truly open-ended question, devoid of the teacher’s assumptions: “How do you see it?” Here, the teacher supports the student, for if a student perceives sarcasm, the student will conceal and deny his or her intentions, leaving the teacher without knowing what important beliefs drove the behavior (5). This is known as the “I wonder...” step, and must be performed with a mix of non-adversarial curiosity and respect.

A typical opening statement to a student might sound like, “I heard one of the nurses was upset about how you spoke to her, and said, in her words, you were ‘brusque and rude.’ While I wasn’t there, I’m worried that if this is the impression someone has about you, it could get in the way of our having effective teamwork, which can potentially interfere with patient care. I’m wondering how it went for you?” The teacher must maintain compassion for the student, as the events may have been a complete misunderstanding, an innocent misinterpretation on either side. Alternatively, the student may reveal any number of reasons for a lapse in his or her professional demeanor—then the teacher must choose which method to attempt to modify the student’s thinking, and ultimately, behavior.

As teachers, we must listen carefully and ask clarifying questions from the student, followed by teaching tailored to each student. With practice, the entire crafting of the “I saw, I think, I wonder...” can take less than a minute, with rapid and surprisingly positive results. I myself learn from every feedback encounter using this technique, and in doing so, I feel that I grow more open-minded, curious, and even a better teacher. While not all students express gratitude immediately, many of the ones who don’t have reached out to me days to months later and shared how they’ve reflected on our often-brief conversation and grown. As a teacher, nothing brings me more joy than the mutual respect and understanding I can gain with my residents and fellows. Hearing this news of the impact of one of these conversations is the best feedback I can have.

References:
How To Say “NO” to Nitrous Oxide

Mark I. Zakowski, MD
Cedars-Sinai Medical Center
West Hollywood, CA

You asked – and here is your answer. Over the last year several members of SOAP have asked me for information on how to say ‘NO’ to requests for nitrous oxide use in labor at their hospital. Since the equipment to deliver nitrous oxide became available again in the United States a couple years ago, the current ‘trend’ has been for expanded use of nitrous oxide in labor. From my personal experience and other role as Chair, Legislative and Practice Affairs for the California Society of Anesthesiologists, I offer you the following education and practice management guidance. This article is NOT a pro-con debate on the usefulness of nitrous oxide in labor – but a practical and literature based approach on local hospital policy making if you choose NOT to use it. The best scientific article on the pros and cons of the utility of nitrous oxide for labor analgesia remains the review published in 2014 by Likis.¹ If you already use or wish to use nitrous in labor, please skip the rest of this article – if you want to learn how to say ‘NO’ – read carefully.

You are in charge! You can just say ‘NO’. Local hospital politics aside, CMS Conditions of Participation (42CFR 482.52 Anesthesia Services) directs the Department of Anesthesia at each hospital to be responsible and oversee the administration of ALL anesthetics at the hospital.

Nitrous oxide has NOT been shown to be of significant benefit in labor analgesia. Nitrous oxide provides at best minimal relief, with nausea, vomiting, drowsiness and dizziness. The latest, most comprehensive, scientifically valid review article concluded “the strength of the evidence was insufficient for effectiveness in managing labor pain, low for satisfaction, and moderate for harms.”² There has only been one double blind, randomized, placebo controlled study of nitrous oxide in labor, which did not find a different in pain scores between inhaled nitrous oxide and air (suggesting a placebo effect).³ Yet, many potential harms are associated with nitrous oxide.

Environmental risk to people in the room. Nitrous oxide exposure is bad for everyone. Multiple studies have shown risks of environmental exposure. Animal data clearly shows chronic exposure to interfere with fetal growth, spontaneous abortion and long term learning decrements. Chronic exposure leads to an increase in spontaneous abortions and decreased fertility in humans. OSHA states epidemiologic evidence shows a “consistent excess of spontaneous abortion in exposed women.”⁴ A positive correlation (increasing exposure, increasing damage) was found between occupational exposure to ambient nitrous oxide levels in female nurses and reactive oxygen species, as well as nitrous exposure to DNA damage.⁵ A recent study showed a statistically significant increased genetic damage in anesthetists (modern scavenging) compared to controls in sister chromatid exchange (suggests inability to repair DNA), lymphocyte replication capacity and damage was also increased in genetically susceptible individuals (glutathione S-transferase T1 null).⁶

Risk to the baby. Nitrous oxide rapidly crosses the placenta. Multiple studies have found adverse effects of anesthetic agents (including nitrous) in multiple diverse small and large primate animal models during the in utero/preterm/newborn time periods when the brain is undergoing rapid neuron growth and structuring. These effects include widespread neuronal apoptosis (cell death) especially in the developing brain, deficits in hippocampal synaptic function, and persistent memory/learning impairments.⁷ Toxicity appears to be greater when GABAergic and NMDA antagonist drug exposures are combined.⁸ The developing brain is particularly prone to the effects of nitrous and other general anesthetics, and “commonly used anaesthetic agents can cause widespread neuronal cell death in developing animal brains” with long term effects on hippocampus, memory and learning.⁹ These studies and others have evoked great concern within the anesthesia community on what the effects are and how to provide anesthesia safely to pregnant moms, newborns and children, which are currently being investigated along with the FDA.

In answer to those who justify the proposed use of nitrous oxide in labor because it falls within NIOSH guidelines, consider the following. The same NIOSH publication starts with “WARNING! Workers exposed to nitrous oxide (N2O) may suffer harmful effects.” The NIOSH limit of 25 ppm for nitrous oxide originated in 1977 and was maintained in the last update, which was 1994! The suggested limit was intended to “prevent decreases in mental performance, audiovisual ability, and manual dexterity during exposures to N2O”¹⁰ and have nothing to do with ‘safe’ limits of exposure, especially for pregnant women and their unborn child.

In summary, while the efficacy of nitrous oxide for labor analgesia remains controversial, your ability to say “NO” re-

How To Say “NO” to Nitrous Oxide continued on next page
Announcements

SOAP/Kybele International Outreach Grant

The Society for Obstetric Anesthesia and Perinatology (SOAP) is pleased to announce that it is seeking applications for the SOAP/Kybele international outreach grant. The application deadline will be April 10, 2015 with expected funding of the grant in spring/summer 2015.

The goal of this program is to provide funding needed to get involved with international outreach projects in order to identify and train future leaders in international outreach from SOAP members. Specifically the grant is designed to encourage research in collaboration with host countries with the goal of enhancing the practice of obstetric anesthesia in those countries.

Board Nominations

SOAP is calling for nominations for the elected positions of 2nd Vice President and Treasurer. Interested members should send a short statement and picture to tierney@soap.org for posting to the SOAP website.
### Program Schedule

#### Wednesday, May 13, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>7:00 a.m. - 6:00 p.m.</td>
<td>Registration Hours</td>
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| 8:00 a.m. - 12:00 p.m. | Use of the Transthoracic Echocardiogram in the Management of the High Risk Parturient  
  **Course Directors:** Brendan Carvalho, M.B.B.Ch., FRCA, M.D.C.H.; John T. Sullivan, M.D., M.B.A. |
| 8:00 a.m. - 4:00 p.m. | MOCA® Part IV Workshop: Session 1  
  **Course Directors:** Brenda A. Bucklin, M.D.; Adrian Hendrickse, M.D.; Cristina L. Wood, M.D. |
| 8:00 a.m. - 12:00 p.m. | Professional Development and Education Workshop  
  **Course Directors:** Elizabeth H. Ellinas, M.D.; Michaela K. Farber, M.D., M.S.; Klaus Kjaer, M.D.; Paloma Toledo, M.D., M.P.H.; Lawrence C. Tsen, M.D. |
| 1:00 p.m. - 5:00 p.m. | The Use of Ultrasound for Obstetric Anesthesia  
  **Course Director:** Jose C.A. Carvalho, M.D., Ph.D., FANZCA, FRCPC |
| 6:00 p.m. - 8:00 p.m. | Welcome Reception at The Broadmoor Lakeside Terrace |

#### Thursday, May 14, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:00 a.m. - 6:00 p.m.</td>
<td>Registration Hours</td>
</tr>
<tr>
<td>6:00 a.m. - 7:30 a.m.</td>
<td>Continental Breakfast &amp; View Posters - Exhibits Open</td>
</tr>
</tbody>
</table>
| 7:30 a.m. - 7:45 a.m. | Welcome to the 47th Annual Meeting  
  Brenda A. Bucklin, M.D.; Manuel C. Vallejo, Jr., M.D., D.M.D.; Robert R. Gaiser, M.D. |
| 7:45 a.m. - 9:15 a.m. | Gertie Marx Research Competition  
  **Moderator:** Richard M. Smiley, M.D., Ph.D. |

#### Friday, May 15, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>6:00 a.m. - 1:15 p.m.</td>
<td>Registration Hours</td>
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</table>
| 6:00 a.m. - 7:00 a.m. | Yoga Class (Optional)  
  **Yoga Class** |
| 6:00 a.m. - 7:30 a.m. | Continental Breakfast & View Posters - Exhibits Open |

#### Saturday, May 16, 2015

<table>
<thead>
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<th>Time</th>
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<tbody>
<tr>
<td>6:00 a.m. - 5:00 p.m.</td>
<td>Registration Hours</td>
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</table>
| 6:00 a.m. - 7:00 a.m. | Yoga Class (Optional)  
  **Yoga Class** |
<p>| 7:00 a.m. | 5K Fun Run/Walk |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:00 a.m. - 8:00 a.m.</td>
<td>Continental Breakfast &amp; View Posters</td>
</tr>
</tbody>
</table>
| 7:00 a.m. - 8:00 a.m. | Breakfast with the Experts (Optional)  
**Moderator:** David J. Wlody, M.D.                                  |
| 7:45 a.m. - 8:00 a.m. | Opening Remarks  
Brenda A. Bucklin, M.D.; Manuel C. Vallejo, Jr., M.D., D.M.D.; Robert R. Gaiser, M.D. |
| 8:00 a.m. - 9:30 a.m. | Obstetric Anesthesia Education Panel  
All Anesthesiologists are Educators at Heart  
**Moderator:** Robert R. Gaiser, M.D.  
- GME & Me  
  **Speaker:** Rita M. Patel, M.D.  
- Evidence Based Approach to Teaching Obstetric Anesthesia  
  **Speaker:** Robert R. Gaiser, M.D.  
- How to Best Teach Our Patients About Obstetric Anesthesia  
  **Speaker:** May C.M. Pian-Smith, M.D., M.S. |
| 9:30 a.m. - 10:30 a.m. | Poster Session 3  
**Moderator:** Vilma E. Ortiz, M.D.                                    |
| 10:30 a.m. - 10:45 a.m. | Awards Presentation                                                  |
| 10:45 a.m. - 11:15 a.m. | Coffee Break & Poster Viewing                                        |
| 11:00 a.m. - 12:00 p.m. | Gerard W. Ostheimer Lecture  
**What's New in OB Anesthesia?**  
**Introduction:** Lisa R. Leffert, M.D.  
**Speaker:** Katherine W. Arendt, M.D.                                |
| 12:00 p.m. - 1:00 p.m. | Lunch On Your Own & Poster Viewing                                   |
| 1:00 p.m. - 2:00 p.m. | What's New in Fetal Surgery  
**Introduction:** Brenda A. Bucklin, M.D.  
**Speaker:** Timothy M. Crombleholme, M.D., FACS, FAAP               |
| 2:00 p.m. - 2:45 p.m. | Oral Presentations 2  
**Moderator:** Paloma Toledo, M.D., M.P.H.                           |
| 2:45 p.m. - 3:00 p.m. | Meta-Analyses  
**Moderator:** Roshan Fernando, M.B., Ch.B.                          |
| 3:00 p.m. - 3:45 p.m. | Coffee Break & Poster Viewing                                       |
| 3:00 p.m. - 3:45 p.m. | Poster Walk Around - Session 3  
**Moderator:** Richard M. Smiley, M.D., Ph.D.                        |
| 3:45 p.m. - 4:45 p.m. | Research Hour: Research Applications/Opportunities with Non-Invasive Cardiovascular Monitors  
**Speakers:** Richard M. Smiley, M.D., Ph.D.; John T. Sullivan, M.D., M.B.A. |
| 6:30 a.m. - 12:00 p.m. | Registration Hours                                                   |
| 6:30 a.m. - 8:00 a.m. | Continental Breakfast                                                 |
| 7:45 a.m. - 8:00 a.m. | Opening Remarks  
Brenda A. Bucklin, M.D.; Manuel C. Vallejo, Jr., M.D., D.M.D.; Robert R. Gaiser, M.D. |
| 8:00 a.m. - 9:00 a.m. | Chronic Pain Panel: Prediction, Prevention, Genetics of Obstetric Pain  
**Moderator:** Pamela Flood, M.D.  
**Speakers:** Inna Belfer, M.D., Ph.D.; Ruth Landau, M.D.            |
| 9:00 a.m. - 10:00 a.m. | Pro-Con Debate: Nitrous Oxide  
**Moderator:** Manuel C. Vallejo, Jr., M.D., D.M.D.  
**Pro:** Manuel C. Vallejo, Jr., M.D., D.M.D.  
**Con:** Robert S. McKay, M.D.                                       |
| 10:00 a.m. - 10:15 a.m. | Coffee Break                                                          |
| 10:15 a.m. - 11:45 a.m. | Best Case Reports Review                                             |
| 11:45 a.m. - 12:00 p.m. | Closing Remarks and Adjournment                                       |

### Future SOAP Meetings

**2016 SOAP 48th Annual Meeting**  
May 18-22, 2016  
Seaport Hotel & World Trade Center  
Boston, Massachusetts

**2016 Sol Shnider, M.D. Obstetric Anesthesia Meeting**  
March 10-13, 2016  
Grand Hyatt Hotel • San Francisco, California
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