

The Airway Gazette

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SAM's Official
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The Journal of
Clinical Anesthesia

The Society for Airway Management



*Distinguished
Service Award*

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Welcome New Members to SAM!!!

Minah Attia, M.D. (Texas)
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Ahmed Zaafran, M.D. (Texas)

Editorial Expressions

Dear fellow colleagues:

The Editorial Staff of the Airway Gazette and the SAM Board of Directors are extremely pleased to have **Dr. Richard Cooper** from the University of Toronto, Canada, fill our second Associate Editor position. Dr. Cooper is exceptionally distinguished for his scholarship, writing, and above all, his mastery of airway management. He epitomizes typically selfless SAM members, who give of their time and expertise. It is an honor to have Dr. Cooper as a resource to help guide the direction of the Gazette.

This issue begins with an excellent update by our **SAM President, Dr. Elizabeth Cordes Behringer**, whose second term promises to bring even more of the skilled leadership she exhibited in 2009-2010.

Dr. William Rosenblatt — that alone is enough to describe the Society for Airway Management's Distinguished Service Award recipient for 2010. He is the embodiment of a superlative within our Society. His extraordinary service to all of us, and many others is engagingly documented within this issue.

Save the date for this year's Annual Meeting: **Sept 15-18th, 2011 at the JW Marriott Camelback Inn, Scottsdale, Arizona.** **Drs. Lauren Berkow and Richard Cooper** are the Co-Chairmen who have secured excellent speakers and faculty. It will be one of the most memorable meetings you will ever have experienced, and no snow! **See the agenda on P. 7-9.**

"Tips and Tricks!" is back, thanks to one of our New Zealand contingent members. We have a new flexible fiberoptic intubation tip from **Dr. Grant Hounsell**, that he has been using for years — particularly useful in those really messy or bloody airways that we all love to get in the wee hours of the day.

Dr. Felipe Urdaneta, who organizes the most interesting excerpts from the SAM Forum for the Gazette, and is the Sam Blog Editor, has written a Guest Commentary on the 2010 American Heart Association's CPR changes relating to airway control.

The AHA's stress on initial "compressions without ventilation," except in asphyxial arrest scenarios where established conventional CPR is recommended (e.g. newborns), evolved from the realization that tissue oxygenation was more dependent on flow than content and that often "nobody wants to give rescue breaths anyway." The AHA recommends insertion of

supraglottic airways (SGA) to prevent "down time" during intubation attempts. This idea was prompted by several studies, e.g. Stone et al Anaesthesia 2008. In this study, nurses inserted laryngeal mask airways successfully (LMA) in arrest patients within two attempts (71% first, 29% second) and had lower incidences of regurgitation (2%) in comparison to patients being intubated (3.5%). Dr. Urdaneta addresses the AHA strategy, and questions whether untrained personnel would be able to handle these techniques and how to improve on their proposals.

Dr. Gail Randel — every once in a while, someone fantastic comes along who can make life radically different, awakening new interests that can be likened to a psychic explosion. She was that smack upside my head that made me realize how much of my activities were purely one-dimensional.

Long associated with SAM, Dr. Randel became Editor-in-Chief of the Gazette in 2006 and graciously brought me into the realm of this phenomenal Society, as an Associate Editor. She is well known for helping to further others' careers and being a source of big shoulders upon which someone can lean.

For a few years, her work at Northwestern in trying to improve resident education in airway management drew her attention away to a certain extent, and she became Associate Editor. Now, with great sadness, we have learned that she has decided to leave this role as well, and it is a particularly heartfelt loss to me. She will be delving into yet another altruistic venture; one for which she has a particular inclination... "physician wellness" and we wish her every success. Fortunately, Dr. Randel plans to continue to be a big part of the SAM workings, just as she did in the organization of the last Annual Meeting.

Please remember that you are SAM and SAM really welcomes your input and ideas for improving patient care and increasing our membership's education. For details, look at the SAM website: www.samhq.com

Regards...
Katherine Gil, MD
Editor-In-Chief



2012 SAM Research Grant of \$5000 — Applications are available by contacting Anne Marie Prince: amprince@peds.bsd.uchicago.edu. Deadline: August 1, 2011

Presidential Update

Elizabeth Cordes Behringer M.D.

**Cedars Sinai Medical Center
Los Angeles, California**



As the Society for Airway Management enters its sixteenth year, I would like to review some of the Society's recent milestones and achievements.

On June 17, 2010, the sudden death of Andranik "Andy" Ovassapian from a major stroke saddened his many friends, colleagues and students around the world. At the time of his death, Andy was a Professor of Anesthesia and Critical Care at the University of Chicago in Chicago, Illinois. Andy was one of the "Founding Fathers" of modern airway management as evidenced by his dedication to teaching, scholarly writing, and patient safety internationally.

In 1995, Andy realized his vision of a multidisciplinary, international, subspecialty organization dedicated to training, education, and research in advanced airway management by the formation of The Society for Airway Management. Amongst his numerous professional accomplishments, Andy served as SAM's first president from 1995-97, as SAM's executive director from 1998-2008, and gave its first Ovassapian Lecture in 2000. Andy received the SAM Patriarch award in 2006. Andy's humor, expertise, humility, and penchant for hard work were known and admired by a myriad of colleagues around the globe.

It was fitting that the 2010 SAM Annual Meeting took place in Andy's hometown of Chicago Illinois from September 24-26, 2010. Several events commemorated Andy's legacy. Dr. D. John Doyle, SAM Past-President (Cleveland Clinic Foundation), gave a stellar review of Andy's contributions to the field of fiberoptic intubation. Dr. Michael Todd (University of Iowa) gave the Ovassapian Memorial Lecture entitled: "Cervical Spine Mechanics, Instability and Airway Management." Dr. Will Rosenblatt, SAM Past President (Yale University), hosted an evening honoring Andy's life and clinical contributions at the fabulous Willis Tower in Chicago. We were honored to have many members of the Ovassapian family attending this special event.

The 2010 Annual Meeting included the launch of the first annual SAM Trainee Travel awards. The Trainee Travel awards encourage residents/fellows in training to submit their scientific work to the Annual Meeting. Four residents were awarded free meeting registration and a cash stipend of \$500 each to defray travel costs. The 2010 SAM Trainee Travel Award

winners included: Alexander Bautista, M.D. (University of Louisville), Richard E. Galgon, M.D. (University of Wisconsin), Andrew Germanovich, M.D. (Advocate Illinois Masonic Medical Center), and Jeff Keck, M.D. (Hartford Hospital).

Four additional SAM Trainee Travel Awards will be granted for the upcoming 2011 Annual Meeting in Scottsdale Arizona. The Deadline for application is June 1, 2011. Details can be found at our website: www.samhq.com. Please encourage your medical students, residents and fellows to become involved in this important endeavor!

The SAM research grants continue to further the research mission of the Society. SAM grants are a one-year grant of \$5000.00 towards projects enhancing knowledge in advanced airway management. Dr. Richard Cooper and Dr. Corina Lee from Toronto General Hospital (University of Toronto, Canada) presented data from their 2010 SAM research grant: "Direct and Video Laryngoscopy in Four Airway Mannequins: A Comparative Study." Dr. Davide Cattano (University of Texas, Houston) presented data from his 2009 grant: "An Evaluation of LMA Seal Using Air Versus Saline: A Mannequin Study."

Two SAM research grants were awarded in 2011: Dr. Tracey Straker (Montefiore Medical Center, Bronx) received the first educational grant for her project entitled: "Use of an On-line Airway Procedure Logbook to Monitor Training Among Anesthesiology Residents." Dr. William Rosenblatt (Yale Medical Center, New Haven) was awarded a grant for his clinical project: "Use of Expiratory Ventilatory Assistance during Transtracheal Jet Ventilation." Both of them will present preliminary data from their grants at the 2011 Annual Meeting in Scottsdale, Arizona.

Grant Applications for the 2012 SAM Research Grant are available by contacting Anne Marie Prince: amprince@peds.bsd.uchicago.edu. Grant applications must be completed by August 1, 2011 for consideration. The 2012 SAM grant will be awarded at the upcoming annual meeting in Scottsdale, Arizona on September 16, 2011.

Overall, the SAM annual meeting in Chicago was an educational and critical success. The enthusiasm of program Co-Chairs, Gail Randel M.D. (Northwes-

Talk to the experts, friends, experienced airway specialists on the SAM Forum

tern University, Chicago) and Lauren Berkow M.D. (Johns Hopkins, Baltimore) and the Annual Meeting Committee was critical to the organization of the 2010 Annual Meeting.

SAM is grateful to continue its international exchange program supported by an unrestricted educational grant from Verathon. In 2010, at the Annual meeting in Chicago, Dr. Mingzhang Zuo from Beijing Hospital, Beijing, China gave an interesting lecture entitled: "Use of the LMA in China". Dr. Thomas Mort, SAM President-Elect (University of Connecticut), and Dr. Maya Suresh, SAM Vice President (Baylor Medical College), were invited to speak at the first National Meeting for Airway Management in Xheng Shou, Henan China in October 2010. SAM was honored to participate in this inaugural international conference.

In 2011, our international exchange program continues under the expert guidance of SAM Past President, Chandy Verghese (Reading NHS, UK). SAM is delighted to host Dr. Rakesh Kumar from New Delhi, India as our International Lecturer for SAM 2011. Dr. Kumar will discuss Supraglottic Devices as part of the Primary Strategy in the Management of the Anticipated Difficult Airway.

The international exchange between SAM and the Difficult Airway Society (www.DAS.uk.com) continues to thrive. In 2010, Dr. Maya Suresh served as the SAM lecturer at the DAS Meeting in Cheltenham UK. The 2010 SAM meeting in Chicago served to host two prominent members of DAS: Dr. David Ball (Dumfries and Galloway Royal Infirmary, Dumfries UK) served as DAS lecturer at the 2010 SAM Annual meeting in Chicago. Dr. Ball gave a wonderful lecture entitled: "Patients, Principles and Paradigms." In addition, Dr. Barry McGuire (Ninewells Hospital, Dundee Scotland) gave an enlightening journal review of pertinent recent articles entitled: "Supraglottic Devices."

The upcoming 2011 Annual meeting in Scottsdale, Arizona will host Dr. Ellen O'Sullivan, DAS president (St. James Hospital, Dublin, Ireland). Dr. O'Sullivan will present the 2011 DAS lecture:

"Tracheal Intubation Via a Supraglottic Airway-What Works Well." Dr. Tim Cook (Bath, UK) will deliver the Ovassapian lecture entitled: "Major Complications of Airway Management in Anesthesia, ICU and the ED. An Overview of the Results of NAP4," regarding results from the fourth in a series of UK National Audit projects.

2011 Annual Meeting Program Co-chairs, Drs. Lauren Berkow and Richard Cooper, have assembled a veritable pantheon of international airway experts. The 2011 Annual meeting will be held at the beautiful J.W. Marriott Camelback Resort and Spa in Scottsdale, Arizona from September 16-18, 2011. Further information about the 2011 Annual meeting and registration information can be found on websites for SAM, the University of Massachusetts CME office, and Facebook as follows: (www.samhq.com), (<http://www.umassmed.edu/cme/events>), and (www.facebook.com), respectively.

The newly revised SAM website continues to grow with the leadership of D. John Doyle, M.D. and members of the ad hoc Website committee. Dr. Doyle is eager to expand the content of the website. Please contact him via email: djdoyle@hotmail.com.

Dr. Katherine Gil continues her stellar leadership at the helm of the Airway Gazette. She continues to scour the globe with her team of volunteer reporters for the latest news in Advanced Airway Management. If you would like to contribute to an upcoming edition of the Airway Gazette please contact the Editor-In-Chief at: k-gil@northwestern.edu

I am delighted to serve a second term as President of the Society for Airway Management during the 16th year of this multidisciplinary organization. I wish to thank all of the individual SAM members who have generously donated their time, interest, and expertise towards the continued growth and development of this international Society. I look forward to welcoming you to Scottsdale Arizona for the 15th Annual Meeting and Workshops!

Best regards for a rewarding 2011!
Elizabeth Cordes Behringer M.D., Los Angeles, CA

To All SAM MEMBERS

Add to your experience and develop multiple options for patient care!

Keep the Society for Airway management vibrant: We invite you to join our committees, send in your ideas for meetings, the Internet SAM Forum, and the Airway Gazette.

Your opinion and participation can always help us improve.

**Distinguished Service Award - 2010 Medalist
Dr. William H. Rosenblatt**

**Yale University School of Medicine
New Haven, Connecticut**



Dr. William H. Rosenblatt was the recipient of the Society's Distinguished Service Award presented at the 2010 SAM Annual Meeting in Chicago, IL. Many SAM members know him as the "policeman/referee/guardian" of the SAM online discussion forum, but few know of his vast number of accomplishments and contributions made in the field of airway management and education. I have known "Will" for many years and discovered even more when I reviewed his curriculum vitae.

Will Rosenblatt was one of the founding members of SAM in 1995 and has since held a variety of offices including SAM President in 2005, as well as Secretary and Treasurer in previous years. He currently serves on the Board of Directors of the Society. He is Professor of Anesthesiology and Surgery at Yale University, the institution where he trained in anesthesiology and has practiced for twenty years. His current academic title, Director of Otolaryngologic Anesthesia, reflects his interest and expertise in that specialty and his collaboration with the department.



Will began his medical career as a pediatrician and later trained in anesthesiology. From the beginning of his work studying childhood health in Latin America, he found ways to combine his interest in global health with teaching anesthesiology and eventually airway management. He is widely recognized as a teacher and a highly regarded speaker on the national and international scene. At Yale, he established many innovative programs to train students, residents, and clinicians in airway management skills.

Will Rosenblatt is, without doubt, an "early adopter" and innovator. He understood and easily made understandable many aspects of airway management such as fiberoptic intubation, the intubating laryngeal mask, and airway topicalization. His careful analysis of the state of airway evaluation coupled with the skilled use of supraglottic airways led him to devise the "Airway Approach Algorithm", a useful decision-making guide for airway dilemmas. His most recent publication describes the preoperative endoscopic airway evaluation (PEAE) a new and revealing approach to the airway exam.

In addition to clinical practice and publications, Will has been "videographer, producer, star, and director" of instructional films on a variety of airway management techniques. Anyone who has attended Will's lectures is amazed by his command and use of multimedia for optimal effects. As one who has shared a few panels with him, he's a difficult act to follow. He is not only the Steven Spielberg of multimedia presentations, but adds a "Coen brothers" edge by ending with a self-demonstration of LMA insertion or tracheal intubation.

Perhaps his proudest achievement and ongoing passion is the organization REMEDY-Recovered medical equipment for the developing world, which he founded in 1991. This non-profit organization expedites the transfer of discarded but unused medical supplies to impoverished areas. He received the Rolex Award for this work in 1996 and continues to guide the organization. Will has been tireless and yes, innovative in his fund-raising efforts for REMEDY, which have extended to long distance running and bicycle rides. In closing, we are thrilled that he received the Distinguished Service Award for his many achievements and undying enthusiasm for airway management.

— Irene Osborn, M.D.

Visit <http://www.samhq.com> to find all SAM Gazette Publishing Guidelines.

2011 Annual SAM Meeting: Introduction

Lauren Berkow, M.D.
Johns Hopkins
Baltimore, Maryland



The 15th Annual Society for Airway Management Meeting is just around the corner (well, at least to those planning the meeting such as myself!) on September 16-18, 2011 in Scottsdale, Arizona, at the JW Marriott Camelback Inn Resort and Spa.

We have an exciting program planned this year. Topics include: “Innovations in Education and Information Dissemination”, “Can We Accurately Predict the Difficult Airway?,” “Expecting the Unexpected”, “Current Controversies in Airway Management”, “Innovations Outside the Operating Room”, and “Dare to Share: Scary Cases in the Real World”. We have many talented international speakers from Canada, Denmark, France, Germany, India, Italy, New Zealand, the Netherlands, United Kingdom, and the United States. We also have several Pro-Con Debates arranged— expect lively and heated discussions! This year’s Ovassapian Lecture will be given by Dr. Timothy Cook, who will present the results of his recently published (UK) 4th National Audit Project (NAP4). Dr. Cook and Dr. Timmerman will also be hosting an expert round table session on how to get started with research in Airway management.

We have re-organized the Hands-On Workshop structure this year in order to allow more time for direct interaction with the Workshop instructors and less crowding at the more popular stations. This year we are requesting that workshop participants select five workshop stations of their choice and will be given specific time slots for each station.

The use of Ultrasound for Airway evaluation workshop was extremely well attended in 2010, and Dr. Michael Kristensen has graciously agreed to repeat the workshop this year. As well, he will offer an expert round table session on Ultrasound. I expect these sessions to fill up quickly!

There will be a resident’s round table on Saturday September 17, 2011 entitled “Fiberoptic Tips and Tricks” presented by Dr. Carin Hagberg and Dr. Marshal Kaplan. Space is limited to 20 residents, so sign up early!

We encourage residents to attend the meeting and to submit abstracts. We will again award several **trainee travel awards** to outstanding abstract submissions, but please note, the **deadline for the 250-word abstract submissions is July 15, 2011.**

The JW Marriott Camelback Inn is a beautiful place, and we have planned several outdoor social activities during the meeting to take advantage of the luscious landscape. When you are not attending the meeting, check out the spa, pools, hiking trails and golf courses on the property! We have also arranged for children’s activities at the resort so feel free to bring the whole family.

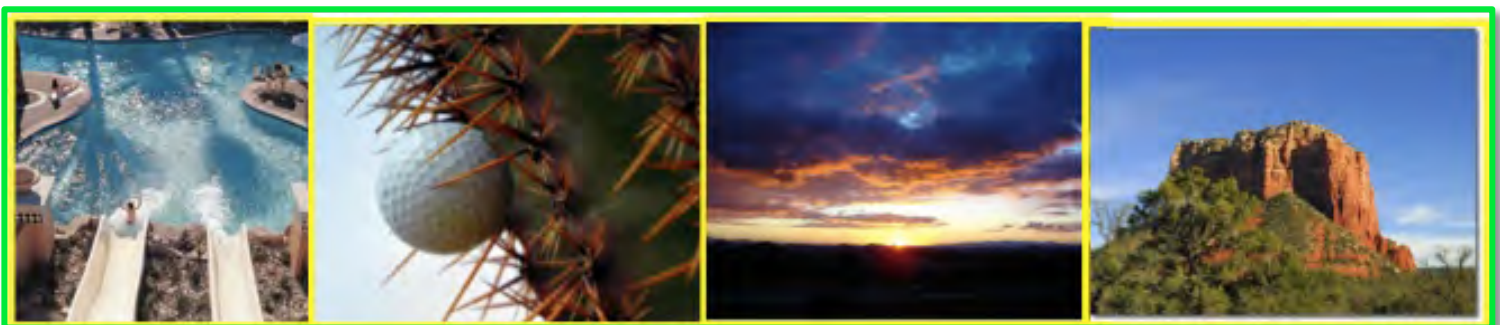
We look forward to seeing you in Scottsdale in September!

Lauren Berkow, M.D.

2011 Annual Meeting Program Chair

Richard Cooper, M.D.

2011 Annual Meeting Program Co-Chair



*Participate in our SAM Internet Forum
and the SAM Blog*

FRIDAY, SEPTEMBER 16, 2011

6:45 – 7:45 am	Registration & Continental Breakfast View Exhibits
7:45 – 8:00 am	Opening Statements Lauren Berkow, MD., Program Chair Elizabeth C. Behringer, M.D. President, Society for Airway Management

SESSION I: INNOVATIONS IN EDUCATION AND INFORMATION DISSEMINATION

Moderator:	Lorraine Foley, M.D.
8:00 – 8:30 am	Perioperative Communication and Handoffs Lauren Berkow, M.D.
8:30 – 9:00 am	Airway Algorithms: How do they differ around the world? Max Sorbello, M.D.
9:00 – 9:30 am	MedicAlert Foundation: Effective dissemination of critical information Lynette Mark, M.D.
9:30 – 9:45 am	Panel Discussion
9:45 – 10:15 am	Poster Viewing / Break/ Visit Exhibits

SESSION II: INNOVATIONS OUTSIDE THE OPERATING ROOM

Moderator:	Chris Christodoulou, M.D.
10:15 – 10:35 am	CAB instead of ABC: Airway Management within the new ACLS guidelines Richard Aghababian, M.D.
10:35 – 10:55 am	Extubation and PACU Issues in the Obstetric Patient Maya Suresh, M.D.
10:55 – 11:15 am	Extreme Sports: Airway Management in Remote Locations Irene Osborn, M.D.
11:15 – 11:35 am	Airway Issues in the ICU: Critical Events Elizabeth Behringer, M.D.
11:35 – 12:00 pm	Panel Discussion
12:00 – 1:30 pm	Lunch on your own SAM Committee Meetings: Lunch provided for committee members

SESSION III: CAN WE ACCURATELY PREDICT THE DIFFICULT AIRWAY?

Moderator:	Richard Cooper, M.D.
1:30 – 2:00 pm	Using Pre-Operative Endoscopy to Predict Difficult Intubation William Rosenblatt, M.D.
2:00 – 2:30 pm	Predicting the Difficult Pediatric Airway Maria Matuszczak, M.D.
2:30 – 3:00 pm	Can We Predict Difficult Mask Ventilation? Olivier Langeron, M.D.
3:00 – 3:15 pm	Panel Discussion

AGENDA

SESSION IV: HANDS-ON WORKSHOPS & PATIENT SIMULATION

Moderators:	Ashutosh Wali, M.D., Irene Osborn, M.D., Richard Levitan, M.D., Joseph Quinlan, M.D.
3:30 – 6:00 pm	Nine Workshop Stations, CHOOSE FIVE (Selection A counts as 2 choices) Please rank choices from 1-8. Every effort will be made to assign attendees their top choices, pending availability. Tickets will be given at the conference with station assignments. Please arrive at your assigned station on time

Station Choices:

- A. Fiberoptic Intubation/Airway Anesthesia (60 minutes)
- B. Videolaryngoscopy
- C. Supraglottic Airways
- D. Ultrasound Assessment of the Airway
- E. Surgical Airway
- F. Rigid Laryngoscopes, Bronchoscopes, Stylets, Extubation devices
- G. Patient Simulator
- H. Pediatric Airway Devices
- I. CPR Training/Oxylator

SAM BUSINESS MEETING

6:00 – 7:30 pm	General Membership Meeting
7:30 – 10:30 pm	Board of Director's Meeting

AGENDA

 2011 SAM Annual Meeting

SATURDAY, SEPTEMBER 17, 2011

6:45 – 7:30 am View Exhibits, Continental Breakfast

SESSION V: ABSTRACT ORAL PRESENTATIONS

Moderators: Thomas Mort, M.D., David Wong, M.D.

7:30 – 9:20 am Eight Abstract Presentations, SAM Grant Award Presentations

9:20 – 9:30 am Presentation of Awards

9:30 – 10:00 am View Posters/Break/Visit Exhibits

SESSION VI: DISTINGUISHED SPEAKERS FROM AROUND THE GLOBE

Moderator: Chandy Verghese, M.D.

10:00 – 10:30 am DAS Representative: Tracheal Intubation Via a Supraglottic Airway: What Works Well
Ellen O'Sullivan, M.D.

10:30 – 11:15 am Ovassapian Lecture: Major Complications of Airway Management in Anesthesia, ICU and the ED. An Overview of the Results of "NAP4".
Timothy Cook, M.D.

11:15 – 11:45 am International lecturer: Supraglottic Devices as a Part of the Primary Strategy in the Management of Anticipated Difficult Airway - Experiences of Our Team Airway with Some Interesting Cases at MAMC.
Rakesh Kumar, M.D.

11:45 – 12:00 pm Panel Discussion

SESSION VII-A EXPERT'S ROUND TABLE SESSION I (LUNCH INCLUDED)

- 12:00 – 1:00 pm
1. Research in Airway Management - How to Get Started?
Arnd Timmerman, M.D., Timothy Cook, M.D.
 2. Ultrasound Evaluation of the Airway
Michael Seltz Kristensen, M.D., Peter Cheng, M.D.
 3. How Can an OB Specialist Maintain Their Airway Skills?
Maya Suresh, M.D., Ashu Wali, M.D.
 4. Extubation of the Difficult Airway
Elizabeth Behringer M.D., Thomas Mort M.D.
 5. Resident Round Table: Fiberoptic Tips and Tricks
Special Trainee Session: Limited to 20 Trainees – Box lunch included
Carin Hagberg M.D., Marshal Kaplan M.D.

SESSION VII-B PROFESSOR POSTER ROUNDS

1:00 – 2:00 pm

Moderators: Orlando Hung, Olivier Langeron, Chris Christodoulou, Sebastian Russo, Lorraine Foley, Michael Murphy, Richard Levitan, Chandy Verghese, David Wong, Irene Osborn, Lee Akst

AGENDA

SESSION VIII: EXPECTING THE UNEXPECTED

Moderator: Carin Hagberg M.D.

2:00 – 2:30 pm What To Do When Bad Things Happen
Aubrey Maze, M.D.

2:30 – 3:00 pm Delayed Complications of Intubation: The OHLN Perspective
Lee Akst M.D.

3:00 – 3:30 pm A "Hot" Topic: Fire in the Airway
Dietmar Enk, M.D.

3:30 – 3:45 pm Panel Discussion

SESSION IX-A EXPERT'S ROUND TABLE SESSION II

- 4:00 – 5:00 pm
1. What Is Airway Competency and How Should We Measure It?
David Wong, M.D., John Schaeffer, M.D.
 2. The Challenging Pediatric Airway
Maria Matuszczak, M.D., Paul Baker, M.D.
 3. Airway Management of the OSA Patient
Lorraine Foley, M.D., Chris Christodoulou, M.D.
 4. A Lidocaine Cookbook; How to Make Awake Intubation Easier
William Rosenblatt M.D., Irene Osborn M.D.
 5. Airway Equipment and Strategies for the Emergency Department
Maksim Zayarny, M.D., Richard Levitan, M.D.

SESSION IX-B PROFESSOR POSTER ROUNDS

4:00 – 5:00 pm

Moderators: Arnd Timmerman, Elizabeth Behringer, Lynette Mark, Maya Suresh, Carin Hagberg, Marshal Kaplan, Thomas Mort, Aubrey Maze, Peter Cheng, Ashu Wali, Max Sorbello, Richard Cooper

6:00 – 8:00 pm Award Ceremony and Cocktail Reception
Tickets are \$75.00 per person

"Join featured presenters, SAM officers, and new colleagues for a special event Saturday night! Relax and enjoy the opportunity to network with experts in airway management. Hors D'oeuvres will be served and a cash bar is available."

AGENDA

 2011 SAM Annual Meeting

SUNDAY, SEPTEMBER 18, 2011

7:00 – 8:00 am View Exhibits/ Continental Breakfast

SESSION X: CURRENT CONTROVERSIES IN AIRWAY MANAGEMENT

Moderator: Elizabeth Behringer M.D.

8:00 – 8:30 am **Pro-Con Debate: Are Mannequin Studies Effective in Assessing airway Devices?**
Arnd Timmermann, M.D., Richard Cooper, M.D.

8:30 – 9:00 am **Pro-Con Debate: Direct Laryngoscopy, Rest in Peace?**
Ken Rothfield M.D., Sebastian Russo M.D.

9:00 – 9:30 am **Pro-Con Debate: Cricoid Pressure, Good or Bad?**
Orlando Hung M.D., Michael Murphy M.D.

9:30 – 9:45 am **Panel Discussion**

9:45 – 10:00 am **Break/Poster Viewing**

SESSION XI: DARE TO SHARE: SCARY CASES FROM THE REAL WORLD

Moderator: Irene Osborn, M.D.

10:00 – 10:20 am **The ICU**
Thomas Mort M.D.

10:20 – 10:40 am **The Operating Room**
Michael Seltz Kristensen M.D.

10:40 – 11:00 am **The Emergency Department**
Richard Levitan M.D.

11:00 – 11:20 am **The Pediatric Patient**
Paul Baker M.D.

11:20 – 11:40 am **Panel Discussion**

11:40 – 12:00 pm **Closing Remarks**
Lauren Berkow, M.D., Program Chair
Richard Cooper M.D. 2012 Program Chair
Elizabeth C. Behringer, M.D.,
Immediate Past President, SAM
Thomas Mort, M.D., Incoming President, SAM

AGENDA

Resident/Fellow Trainee Travel Awards: Deadline for application is June 1, 2011.
Details can be found at our website: www.samhq.com.

Deadline for the 250-word abstract submissions for SAM's Annual Meeting is July 15, 2011.

E – LIGHTS OF THE SAM FORUM

Felipe Urdaneta, M.D.
MRVAMC/University of Florida

VL = Videolaryngoscope
FOB = Flexible fiberscope
CV/CI = cannot ventilate/
cannot intubate
DL = Direct laryngoscopy
OR = Operating room
Walks away = Gets stolen
SGA = Supraglottic airway
OB = Obstetrics



What is the purpose of doing an Awake VL?

The logistics of using VL + FOB do not add up when the same result would be possible with an intubating oral airway and FOB. Tip articulation of the FOB is what makes the tube advancement smoother, not the VL. What benefit is there of using any rigid piece with an awake patient?

Harsha Setty, MD

~ I agree that with good topicalization in an awake patient (even with some sedation) there seems to be a minimal advantage to using rigid VL instead of a flexible bronchoscope (FOB) while the risks are higher.

Max Zayaruzny, MD

~ The advantage of VL over FOB intubation is that the introduction of the endotracheal tube is under visual control. When we intubate bronchoscopically, our eyes are trained on the distal airway and advancement of the ETT through the glottis is blind. Often the most challenging part of the procedure is not entering the trachea with the scope, but subsequently entering it with the ETT. I don't agree with the characterization that the risks are higher with VL, though clearly there are patients in whom VL would be inappropriate.

Richard Cooper, MD

~ I disagree that the advantage of awake VL over awake FOB is visualizing the ETT entering the larynx. This may be a *difference*, but I don't see how it is an advantage. I also don't see how advancing the ETT blindly over the FOB is challenging at all. I always use Parker Flex-Tip tubes.

Paul Miller, MD

~ VL and FOB can certainly compliment each other. Combinations of 2 techniques are extremely useful while either technique may have failed. ETT being "hung-up" after successful FOB insertion is not rare unfortunately.

David Wong, MD

~ If the Parker tubes are not readily available, the Fastrach ETT tube from the intubating LMA may be used as an alternative to the standard ET tube when a softer tip tube is needed.

Steve McCornack, MD

A near miss is defined as an "unplanned event that did not result in injury, illness, or damage - but had the potential to do so. Only a fortunate break in the chain of events prevented an injury, fatality or damage." So how would the experts on this board define this for airway management?

I suppose since CV/CI is the analogy to the plane crash, what combination of difficulty with mask and intubation would qualify. Given the small numbers of that actually occur, I wonder if we should be focusing on the immediate antecedents as a source of quality improvement. Such databases do exist, but mainly for medication errors, wrong side surgeries, etc., but not for us.

Aaron Joffe, MD

~ My often cited example of a near miss as it relates to laryngoscopy, is any DL that results in a (Cormack-Lehane grade 3 or higher) regardless of whether intubation is achieved on the first or third attempt. Every blind intubation has the potential for failing. If we continue to find this acceptable, we will fail to advance patient safety. If we define such an event as a near-miss, we create an imperative to find a better way.

Richard Cooper, MD

I am scheduled to anesthetize a trans-sexual female patient having an elective outpatient procedure tomorrow, which I plan to do with an SGA. She underwent a chondrolaryngoplasty (reducing size of the thyroid cartilage) in the past. I know nothing more about her medical history, should I anticipate and prepare for any airway problems?

Allan J. Goldman, MD

E-mail address for letters to the editor and articles
for the Airway Gazette: k-gil@northwestern.edu

~ SGA's should not be an issue. Endotracheal intubation would be a problem if the tube is wrapped around the base of tongue so that it hits the anterior aspect of the interior of the thyroid cartilage (like with a hockey-stick shaped Stylet). Use of a Parker Flex tip may reduce this potential problem. Use of a bougie (passed initially) then advancement of the tracheal tube over that bougie would help prevent any foreseeable troubles. James DuCanto, MD

.....

Follow-up from Dr. Goldman:
I used a Classic LMA size 4. Kept the cuff pressure < 60cm H₂O and it went well.

.....

••• ***To those who supervise residents: Our residents are unsupervised during routine intubations outside the operating and emergency rooms at night time. There has been a lot of resistance on the part of our administration to allow residents to carry a video-laryngoscope. The primary concern is financial. Can I get a show of hands of which centers have a policy which allows the on-call resident to carry a VL unsupervised?*** Will Rosenblatt, MD

~ We usually do not allow unsupervised residents handling the airway outside the OR. We feel that out-of-OR intubations are much more challenging and more likely to result in litigation than routine intubations in the OR. Our residents carry a fiberoptic bronchoscope (Olympus LF-GP) as part of our mobile airway bag. We have been very worried to have them carry VL's in their bag due to potential high rate of losses. Allan Klock, MD

~ Our residents started two months ago got access to a McGrath VL. It is checked out by the senior resident on call at the beginning of their duties. It is returned at the end of the duties. Our policy for airway management states the attending should be aware of airway management encounters, and if drugs are to be administered, the attending is to be present. Douglas Heste, MD

~ Attending presence is required, however occasionally, particularly during very busy times, senior residents may be on their own. We have had issues with loss of more than one VL or the handle and as a re-

sult have recently assessed the usefulness of a portable and disposable VL for this use. If you have sufficient infrastructure to keep track of your equipment outside the OR, all should be well. Otherwise, I would strongly consider using something that you won't be as upset about of it "walks" away. Aaron Joffe, MD

~ Our Glidescopes, Fiberscopes and other high-end equipment have Awarepoint device tracking tags attached to them. (www.awarepoint.com) This allows us to go on the web and find any of these devices inside our medical center. They do not prevent against theft as no alert is activated when they leave the Awarepoint perimeter. Patricia Roth, MD

.....

••• **Anyone using Lidocaine gel on laryngeal masks?** Ivan Hronek, MD

~ I avoid lidocaine with laryngeal masks, I am worried about the pressure of the mask + effect of drug leading to Nerve injury. James DuCanto, MD

~ I agree with this concern. I do not use lidocaine gel or cream to lubricate the LMA surface prior to insertion. The use of lidocaine lubricant on LMA's is one of the predisposing factors to lingual nerve injury. Elizabeth Cordes Behringer, MD

~ Measuring & keeping cuff pressures down is the best way to make SGA's well tolerated, not creams or gels. I've reviewed several cases in the 90's where lidocaine was the probable cause of temporary nerve damage with LMA use. Allan Goldman, MD

.....

Is a planned general ETT anesthesia (GETA or GA) an acceptable option for an elective C-section? Is it ethical to offer a GETA to an obstetric patient having an elective section? North Americans seem to have an irrational fear of general anaesthesia for obstetrics. Eric Hodgson, MD

~ I think intubation is the preferred method in the U.S for GA in obstetrics; hospitals and any groups involved in obstetric cases should have and rehearse difficult/failed intubation drills. Almost everyone will

Disclaimer:
Published manuscripts in the Gazette are not necessarily reflective of the views of the Gazette or the Society for Airway Management.

use an LMA or equivalent for failed intubation in the OB setting these days. Charlie Watson, MD

~ To me GA in OB is indicated more for emergencies and the stat C-section. This is a perfect setup for problems, difficulties and complications.

A key issue underlying difficulty is that GA for OB is not practiced enough. I'll be curious to know how many SAM members that use simulation for teaching difficult airway (DA) have a stat C-section scenario?

Felipe Urdaneta, MD

~ We do Sim Lab sessions with simulated OB difficult airway. Sonia Vaida, MD

~ We perform Crisis Resource Management Courses (CRM) on a regular basis; using the SimMan simulator. We run different scenarios, usually focusing more on non-technical skills than on technical abilities and one out of several scenarios is the emergency C-section with a DA. Sebastian Russo, MD

— SIC —

TIPS and TRICKS

“Dirty Airways” and Fiberoptics

Grant Hounsell, MBChB

Counties Manukau District Health Board
Auckland, New Zealand



Awake fiberoptic intubation remains one of the best options for managing an anticipated difficult airway. It allows the airway to be secured prior to inducing anaesthesia. However, it can, on occasion, prove to be difficult or impossible to accomplish. One of the reasons for this is the contaminated airway. Blood, pus, or secretions can easily contaminate the end of the fiberoptic and cause visual loss and necessitate scope removal and cleaning, prior to another attempt or even, abandonment of the technique.

In addition to facial trauma we encounter facial, retropharyngeal, and submental abscesses. These cases often have contaminated airways, as well as the all too common problem of morbid obesity and/or obstructive sleep apnoea.

The following is a technique I rely on regularly, to manage our maxillofacial surgery population. The safezone anterograde “wired guided” technique owes its creation to the advice of two of my mentors, John Henderson and Vijayalakshmi Patil.

John Henderson taught me to preload a Berman airway with an ETT to protect the fiberoptic from contamination by keeping it recessed within the airway (Fig. 1).

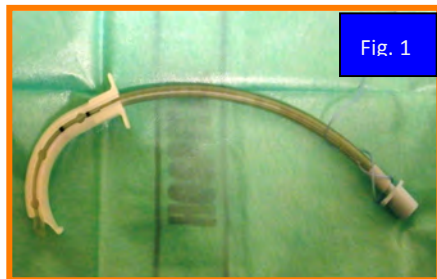


Fig. 1

The result is what we call “the safezone.” John advocated manipulating the airway by hand, with the fiberoptic protected inside the ETT, until the cords could be seen (Fig. 2). This keeps the distal fiberoptic tip free. Once the cords are within view, the fiberoptic tip can be advanced.

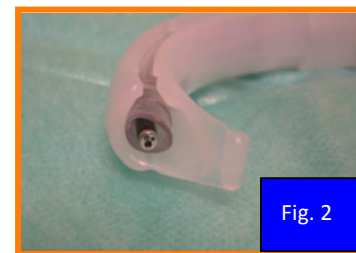


Fig. 2

Vijayalakshmi

Patil recommended using a Cook Newton cerebral wire (0.038inch) as guide for the fiberoptic to follow into the larynx. The Newton cerebral wire is our preferred option as it is 145cm long, allowing the endoscopist to pass a good length of wire into the airway via the fiberoptic. It is a soft, atraumatic, coated wire, which slides easily through the working channel

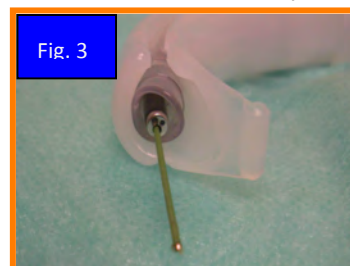
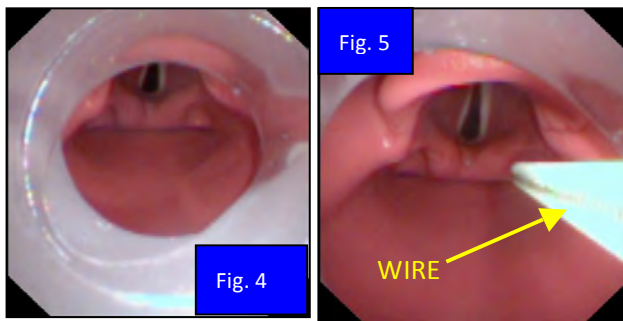


Fig. 3

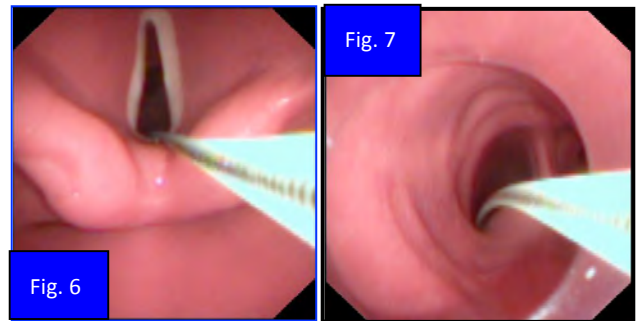
of a fiberoptic (Fig. 3). It has sufficient intrinsic stiffness to permit an exchange catheter or fiberoptic to pass over it. Also, it is reasonably priced.

This wire can be passed from below via the retrograde intubation technique or it could be passed from above in an anterograde manner. The wire is passed

via the working channel of the fiberscope, until it is seen entering the larynx. Once threaded down the trachea the fiberscope follows it, in the way a Seldinger wire might guide a venous catheter (Fig. 4, 5).



When faced with a bloody airway it occurred to me to combine the two techniques. I use the Berman and ETT to create space in front of the larynx, and keep the fiberscope clean. Once I encounter the larynx, I deploy the wire under vision from within the ETT to enter the larynx. I then follow the wire with my fiberscope. I use the airway as an oral conduit that can easily be manipulated within the patient to place the



tip of the ETT in front of the glottic opening.

The fiberscope follows the wire (Fig. 6) and keeps clear of the posterior pharyngeal wall, thus preventing contamination. Even if the view is lost, the fiberscope slides along the wire and often clears as it runs down the tracheal wall. This usually allows easy visualisation of the carina (Fig. 7).

The anterograde wire technique can be used for nasal intubation. The system is advanced through the nostril, and through the nasopharynx until the larynx is seen. The wire is then deployed from within the ETT and directed through the glottic opening. The fiberscope then follows the wire for intubation.

**Guest
Commentary**

Felipe Urdaneta, M.D.

**MRVAMC / University of Florida
Gainesville, FL**



Recently the American Heart Association published their latest version of the guidelines for “Cardiopulmonary Resuscitation and Emergency Cardiovascular Care” to commemorate the 50th anniversary of the introduction of modern cardiopulmonary resuscitation (C.P.R.). [1] Among some of the fundamental changes in the newer version of the guidelines is the emphasis on the role of bystanders initiating resuscitation efforts, and a priority to limit the interval between chest compressions (C.C.) and delivering electrical shock therapy.

The traditional basic life support sequence (B.L.S.) of A.B.C. (Airway-Breathing-Circulation) has been changed to C.A.B. for adults and children (but not for neonates). This is meant to emphasize the importance of quickly initiating compressions and permits the delay of ventilation until completion of an entire cycle of compressions. Some of the reasoning may be

due to a major impediment of bystander C.P.R. or the unwillingness and the inherent difficulty of maintaining a patent airway and delivering rescue breaths. Another factor is the knowledge that during resuscitation efforts, tissue oxygen delivery is dependent more on adequate blood flow than on oxygen content. [2] Traditional rescue breaths are no longer considered a top priority. Positive pressure ventilation with the potential rise in intrathoracic pressure is considered detrimental.

But, what about the airway? According to current guidelines, advanced airway placement during advanced cardiopulmonary life support (A.C.L.S.) should not delay initial basic (B.C.L.S.) maneuvers. Electrical therapy and attempts at advanced airway maneuvers should be made only by skilled personnel and should not limit chest compression for longer than 10 seconds – not surprisingly, the current guide-

lines favor the use of supraglottic devices such as the LMA, Combitube, and laryngeal tube over endotracheal intubation. The guidelines raise issues that could metaphorically be compared to the mythical “Hydra” where more “heads” or “questions” surface every time we try to address a controversial topic.

With regard to ventilation and airway management we have many unsolved controversial issues:

1 - The guidelines as related to ventilation management are tailored more for non-medical providers than medical providers, and more for the outpatient than in-patient settings. Cardiac arrest in the hospital setting usually has a different cause and, not infrequently, respiratory events may be the source of cardiac events. This concern has to be emphasized. Cardiac arrest from cardiac origin should be considered different from cardiac arrest due to other causes, in order to guide the best ventilatory strategy.

Although current guidelines state that the new ventilatory recommendations do not apply to all rescuers and in all circumstances, there are conditions that require special treatment beyond traditional B.L.S. and A.C.L.S. Although numerically, cardiac causes and specifically “shockable” rhythms are the most common reasons for sudden cardiac arrest, not all roots of arrest result from a cardiac origin and more specifically from VF and pulseless VT.[3]

2 - If the old “gold standard” of endotracheal intubation is considered plagued by complications and therefore, no longer recommended as a technique for inexperienced personnel to try, then, we need to determine what is considered “sufficient experience to perform advanced airway maneuvers” and who decides who should be allowed to perform these.

3 - The guidelines state that all providers should have alternative strategies for any airway management plan in case the primary one fails. If there is the premise that advanced airway maneuvers should only be done by experienced personnel, should we really “a priori” accept the premise that inexperienced providers will be able to use any of the alternative devices and techniques for airway management?

4 - Since not all providers are equally equipped,

knowledgeable, or experienced enough to handle the airway in the most extreme of circumstances of resuscitation efforts, there is another potential detrimental side of making the airway less of a priority: it promotes the idea that there is less of a need to learn and teach about simple and advanced airway efforts. Is the correct action and should the message be to abandon learning and performing advanced airway maneuvers in favor of simpler methods?

It is a significant worry that by promoting this rather “dumbing down” approach towards handling of the airway during CPR, we are destined to perpetuate the number of inexperienced providers instead of promoting education and training in airway management so more people can acquire skills and expertise and not the other way around.

Albert Einstein once wrote “We can't solve problems by using the same kind of thinking we used when we created them”. There are many challenges ahead with regards to ventilatory and airway management during C.P.R. Hopefully, in the next 50 years we can have better solutions and better systems for handling the airway. And, more importantly, we can have better systems and methods to improve the spread of knowledge and be able to improve training and the number of skilled providers able to assist a patient who needs life support.

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Editorial Expressions

Dear fellow colleagues:

The Editorial Staff of the Airway Gazette and the SAM Board of Directors are very happy to announce that **Dr. Valerie Armstead** has become an Associate Editor. Dr. Armstead brings a wealth of knowledge and experience in many areas, including pediatric anesthesiology. As a long-time tireless worker for the Society for Airway Management, we are looking forward to her expert input and to continued improvement in the Airway Gazette.

Teaching is something ingrained in most of us. It is an overriding factor on the SAM Forum, which occasionally even leads us astray from the central focus of airway management. At Northwestern University, I have been privileged to work with some of the finest nurse anesthetists ever. I have always felt that all anesthesiology professionals, including the most junior of colleagues, are critical cogs along a path of learning and patient care...just at different points of knowledge. Happily, many of us even with decades of experience, often readily realize that having an open mind can present us with pearls of wisdom, from all kinds of sources. We, in turn, are always willing to impart our knowledge for the betterment of colleagues and patients. **Dr. Andranik Ovassapian** was such a person.

Eileen Marcet is an experienced CRNA from the University of Chicago. Her open letter to workmates about Dr. Andy Ovassapian in this issue, shows us the essence of the man. Her written description of interactions with Andy as an instructor, and her ability to evoke poignant feelings are typical of the quality we come to expect from our nurse anesthetist colleagues. Her eloquence speaks to the heart of trying to convey knowledge whenever possible...one of Andy's biggest traits. Those of us who have read her missive, initially distributed on the SAM Forum, are very grateful that she has granted permission for its publication in the Airway Gazette.

Another anesthesiologist who has gone beyond ordinary operating room duties is **Dr. Abdel El-Ganzouri**, a speaker at last year's SAM Meeting. His documented efforts to spread knowledge to colleagues in Egypt include a difficult airway approach that has been implemented in that country.

We have a new concept in this edition thanks to an idea suggested by **Dr. Elizabeth Cordes Behringer**:

to obtain trainee impressions of the 2010 Annual Meeting. The result is a combined article by **Dr. Anwuli Okoli** (Fellow) and **Dr. Kimberly Cover** (CA-2). They have different viewpoints and descriptive styles worth noting. The future of our specialty is in our trainees. Some clinicians feel that trainees want to be spoon-fed with knowledge and do not want to exert efforts in the pursuit of learning. These two physicians are admirable examples to their fellow trainees of professionals who, not only spent their own time in an endeavor to improve themselves, but also have spent time considering the charge presented by the Airway Gazette: to express their ideas of the worth of last year's meeting to their young colleagues.

Dr. Felipe Urdaneta of E-Lights fame, continues to cull excerpts from the SAM Forum and has added an innovative aspect by actually searching out pictures of discussed devices he assumes might be somewhat unfamiliar to perhaps one or two of our readers. I admit I was also provoked to add a picture.

And, fortunately for us, **Dr. Adrian Matioc** has provided an interesting "Tips and Tricks!" article that has many good points in support of the approach concerning: What to do immediately after intubation and when should an Airtraq® be removed?

You are going to the SAM Meeting, right? Surely, you cannot possibly want to pass up this phenomenal experience (see P. 11)? Give us a hand at the ASA and also at the SAM Annual Meeting. What is the hand at the SAM conference? We need some people to volunteer to listen to a few talks at a session, make notes, and write up a synopsis for the subsequent Airway Gazette to help absent colleagues...more on that later.

I hope there is enough thought-provocation in this issue that we will receive letters, articles, and ideas for future issues. SAM always welcomes member participation.

Regards...
Katherine Gil, MD
Editor-In-Chief



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“Remembering Andy Ovassapian, M.D.

Has it Really Been a Year?”

By Eileen Marcet, C.R.N.A.

University of Chicago Hospitals

Chicago, Illinois



Preface: This letter was written for Dr. Andranik Ovassapian’s colleagues, sent to the Sam-leadership-forum, and posted on the SAM Internet Forum...

June 17th marked the one-year anniversary of Andy Ovassapian's passing. It's hard to believe that a year's gone by. I know I'm not the only one who misses him. Sometimes I swear I catch a glimpse of him somewhere in the hospital; but, when I turn around, it's not him. Or I'll see some patient with some weird facial feature and think, whoa, THAT'S an Andy-Airway for sure!

Andy was just a great guy! A mentsch. I never heard him yell or saw him get mad. He was always there to lend a hand. Even if he had his own rooms to start, all you had to say was, "Andy, I got this guy...." and he'd be there for you. ...Unexpected difficult airway? He seemed to appear outta nowhere, not to steal the show, but to calmly guide you through. Then POOF! He was gone. He didn't need fanfare or praise. He was just doing what he did best.

And what that best was! He never made you feel like you had eggplants instead of fingers, even if maybe you did. Never made you feel bad about yourself. He was patient (Oh GOD! was he patient!) and easy to understand. He kept it simple. How many times would he laugh and say (in that sweet Armenian accent) " Oh, you young people! Why you make tings so complicated? Is simple!". He'd let you struggle a bit, too, if need be, knowing that sometimes it's through mistakes that lessons are best learned. He'd encourage you; he'd praise your victories and use your failures as a means to teach. You always learned things from him, and not just about airways. He taught you how to look at things logically, simply ... to remember the basics.

A "good job!" and a clap on the back from Andy made your day. It really meant a lot. You knew you were gonna have a good day if Andy was your attending, even if the cases were gonna be miserable.

He was kind and jovial, always concerned. He could lighten things up when you were stressed. He was generous. He was always the first to contribute when I'd send packages to Marc and Fakh (informational note: Marc and Fakh are two CRNAs in our department who are Army reservists and have spent a lot of time in Afghanistan). He'd see me and make me stay put so he could go to his office to get some money right then and there. Every day, while Marc and Fakh were gone, Andy asked about their families ... if they were okay, if they needed anything. He always said, let me know what I can do. And he meant it.

We were so lucky to have Andy. Everyone loved and respected him, from housekeeping staff and transporters right on up to the surgeons in their ivory towers. It's too bad so many new medical professionals won't have the chance to know him, to learn from him. But all the airway stuff we pass on came from him... things that are taken for granted. It's hard to imagine a time when there were no LMAs, no fiber-optics, and no ways to manage a difficult airway with anything but a tracheotomy. Because of Andy's contributions to anesthesiology, airways aren't impossible anymore, and people, who very well could have died if their airways were lost, survived.

So, think of Andy Ovassapian. Remember what a wonderful teacher and colleague he was to all of us. Remember what a great friend we lost. And, the next time you're faced with the airway from hell, remember that he's there in the back of your mind showing you the way. God bless ya, Andy

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**Providing Training in Airway Management,
An International Experience in Egypt**

**Abdel R. El-Ganzouri, M.D.
Rush University Medical Center
Chicago, Illinois**



Introduction

In the last ten years (2000-2010) airway management (AWM) training has witnessed significant advancements, largely due to the efforts of the American Society of Anesthesiologists (ASA), Society for Airway Management (SAM) and several AWM pioneers. They have supported the introduction of new techniques and new tools for improved AWM that have resulted in improved patient outcomes.¹

When we launched our comprehensive AWM training program at Rush University Medical Center (RUMC) in 1986, the initial focus was teaching the proficient use of fiberoptic endoscopy.² Later, we expanded the training to include the placement of supraglottic airway devices (SGA—mainly LMA), and most recently the Air-Q™ laryngeal airway (Air-Q™ LA).

The Egyptian Experience – 1997

Having observed the contribution that a training program affords a department and its patients, I embarked on the development of a sustainable advanced airway-training program (ATP) for our Egyptian counterparts. In the winter of 1997, I took a month’s leave from RUMC and initiated an ATP at a 200-bed private hospital in Cairo, Egypt. Two attending anesthesiologists successfully completed the training program under my tutelage, having performed more than 250 fiberoptic tracheal intubations (FTI), mostly on patients with normal airways. It was gratifying to know that they in turn would share the training with others in their department.

10 Years later – 2008-2009




In 2008 and 2009, I devoted four months each year to renew my efforts to establish an ATP in Egypt. This time, I chose three anesthesiologists whose enthusiasm and dedication formed the backbone of the training program, to assist me in training an additional six anesthesiologists. By the end of the second year, all nine anesthesiologists had successfully finished the Fiberoptic Training Program.

Clinical Training

One key facet of our program was providing training

in our pre-operative airway assessment score (AS) methodology (Fig. 1).³

Fig. 1 Preoperative Airway Assessment

Assessment	0 Points	1 Point	2 Points
Interincisor gap	> 4 cm	< 4 cm	Cannot open mouth
Mallampati Classification	Class I 	Class II 	Class III 
Head/neck movement	> 90°	= 90°	< 90°
Buck teeth	Can prognath or edentulous	Can approximate teeth only	Cannot approximate teeth
Thyromental distance	> 6.5 cm	6.0 - 6.5 cm	< 6.0 cm
Body weight	< 90 kg	90 - 110 kg	> 110 kg
History of difficult intubation	None	Questionable	Definite
Airway Score (AS) range 0-14	0	7	14

The ideal test to predict a patient with a difficult airway (DA) is one that is simple, fast, cost effective, and demonstrates a high sensitivity and specificity with little or no inter-observer variability. The test should also be objective and its results reproducible.

Such an ideal test does not exist, but previous studies have validated that the more criteria used within such a tool, the better it is at predicting a difficult airway.^{4,5} The seven criteria of our AS system are simple and easy to use without added tools (Fig 1). Accordingly, the higher the score, the more predictive it is that the patient has a DA. The ATP included guidelines to be followed in accordance to the observed AS. Following these guidelines is essential to making the AS approach safe and to prevent adverse airway complications.

Our method of AS was explained in detail to every training program participant. Certain clinical conditions invalidate our method of assessing the airway; namely cervical pathology (e.g. spine fracture) and upper airway pathology (e.g. trauma, infection, tumors, and patients with GERD (including associated problems)).^{6,7} For these clinical situations, trainees are taught that awake FOI is very strongly recom-

mended. Following induction of general anesthesia (GA) and administration of muscle relaxant in a patient, if rigid laryngoscopy (RL – plan A), SGA (plan B) and FOI (plan C) fail, then surgical access (plan D) should be strongly considered without delay, while the anesthesiologist maintains oxygenation (preferably with a SGA).

Refinement of ATP 2010 – A 3-month period

In 2010, I returned to Cairo to continue efforts to expand our ATP. I undertook training in the use of Air-Q™ LA, including proper technique for its insertion and use as a conduit for tracheal intubation (TI). This was provided to the original three trained anesthesiologists who, in turn, helped train 20 others. One of the three also facilitated at meetings with the Dean of the Faculty of Medicine and the Chairman of the Department of Anesthesiology to help underscore the importance of continuing the program even after my return to the United States.

All 23 trained anesthesiologists and I contributed to the development of the Egyptian Society for Airway Management (ESAM), its algorithm (Fig. 2, 3), and

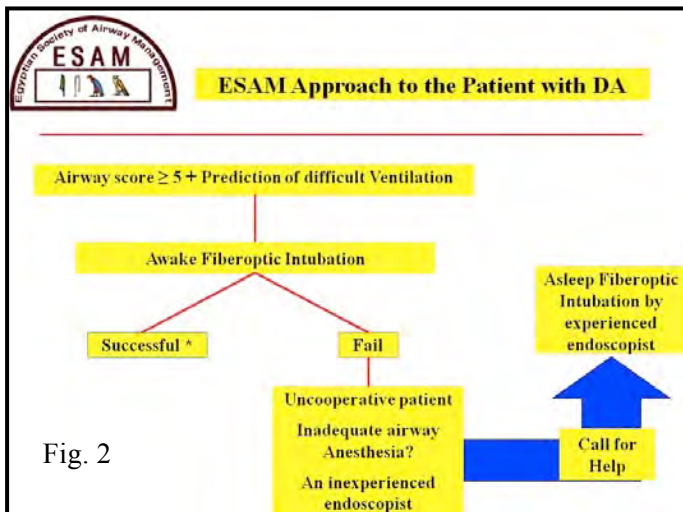


Fig. 2

its by-laws including new recommendations...”After one optimal RL if DA is diagnosed, then the RL should not be removed (optimal RL is defined as being performed by an endoscopist with a minimum of three years experience, under optimized conditions: sniffing position, muscle paralysis, and external laryngeal manipulation, etc. as indicated). Instead, a SGA should be inserted under direct vision. The SGA (Laryngeal Mask Airway™ (LMA), ProSeal LMA™, LMA Supreme™, Intubating LMA™, Air-Q™LA,

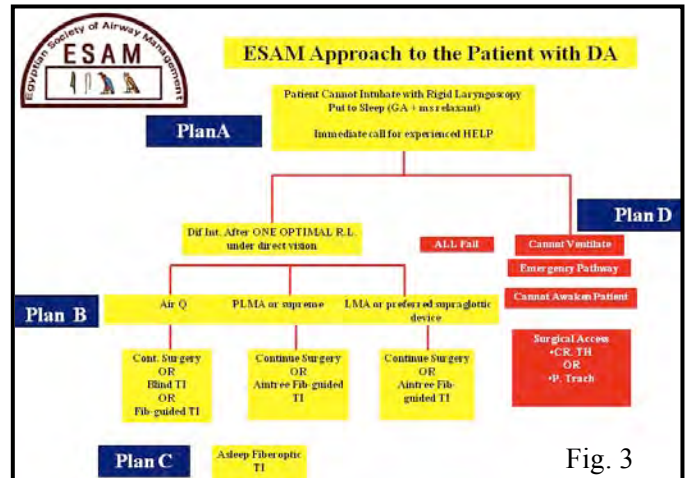


Fig. 3

Dif Int. = Difficult Intubation, CR TH = Cricothyrotomy, P TRACH = Percutaneous Tracheostomy

Cobra PLA™, Ambu, C Trach™, etc.) can be attached to a circuit and ventilation with oxygenation initiated. If TI is mandatory, various SGA can be used as a conduit for TI, either blindly or fiberoptically guided. After RL, the SGA should be removed and the endotracheal tube (ETT) placement should be confirmed 2-3cm above the carina.

Take Home Messages

From 30 years of experience at RUMC and in Egypt, I am confident that an ATP allows for safer anesthetic technique and prevents adverse complications. This objective is achieved by assessing the patient’s airway and establishing plans B, C, or D. When there is any doubt regarding the ability to provide ventilation/intubation, awake fiberoptic intubation is strongly recommended. Call for help early in the process, and remember problems usually result from lack of ventilation, not from lack of intubation. Make the patient’s safety your utmost priority above any other consideration to improve the patient’s outcome.

I wish to acknowledge Kenneth J. Tuman, M.D. and Sandra C. Toleikis, M.A. for their advice and help during the preparation of this article.

References

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- 7 Nasr et al. J Clin Anesth. 2010; 22(5):389-90

Visit <http://samhq.com/algorithms/> for everything you wanted to know about difficult airway algorithms around the world, and more!



Trainees' perspectives of the 2010 Society for Airway Management Annual Meeting

Preface

Two trainees (an Anesthesiology Fellow and an Anesthesiology Resident) were selected randomly to describe their experiences at the S.A.M. Annual Meeting. They were given a clear authorization to speak freely in the hopes that their viewpoints might draw other trainees to this educational experience and improve future meetings for trainees.



A Fellow's Perspective of the 2010 SAM Annual Meeting

Anwuli Okoli, M.D. (Clinical Fellow)

Neurosurgical Anesthesiology 2010-2011

Northwestern University Feinberg School of Medicine

Chicago, Illinois

Introduction

I consider myself privileged to have the opportunity to work closely with several of the Faculty Members who taught at the 2010 Society for Airway Management Annual Meeting last September in Chicago, Illinois.

Following my graduation from residency in the field of Anesthesiology, I had been in private practice doing interventional pain management for many years. I returned to the world of training to do a Neurosurgical Anesthesiology Fellowship at Northwestern Memorial Hospital in Chicago in July of that year. I could not have asked for a better time to attend the SAM Annual Meeting and Workshop. When I completed my residency, flexible fiberoptic intubations were not being widely used. And, I had never used a videolaryngoscope until I came to Northwestern.

Impressions of the S.A.M. Annual Meeting... What were the best things?

At the Annual Meeting, the first lecture I attended was by Dr. Abdel El-Ganzouri, describing his experience in Egypt teaching fiberoptic intubation. It was good to see how he followed up with further workshops and trained many Anesthesiologists in a very short period of time.

Dr. Lauren Berkow's description of the changes made to integrate the approach to Emergency Airway Management at Johns Hopkins, was extremely valuable. It reaffirmed the idea that in emergency airway situations you can never be too ready or prepared. The difference between Hospitals was appreciated when Dr. Gail Randel presented airway management at Northwestern.

It was good hearing about Dr Andranik Ovassapian and his development of Advanced Airway Management, and made me realize his historical role in this area.

Overall, the best part of the meeting for me was the SAM Workshop and simulation. My favorite stations were the adult and pediatric fiberoptic stations. I also enjoyed the LMA station and especially meeting with Dr. Chandy Verghese from the United Kingdom. There was a wide array of new supraglottic airway devices and video-laryngoscopes, and the opportunity to appreciate their differences.

Are there any suggestions for improving attendee's experience at S.A.M. Annual Meetings?

I think the Workshop should be spread over a morning and an afternoon session. Also, preferably it should be held on a Saturday to encourage trainee participation. I feel that the time dedicated to the Workshop and to Simulation was inadequate. The Simulation station should also have an increased number of mannequins for scenarios to provide more opportunity for practice. The stations for the cricothyrotomy and for jet ventilation should have been bigger and more prominent.

Providing quick lunches on site for the attendees would have been nice and would have saved some time. That time may have been spent interacting with the Exhibitors and Faculty members.

I was extremely grateful that the meeting was held in Chicago, which is home to several training programs. I think this factor should be considered when planning future meetings. This makes it easier and less expensive for residents to attend.

What is your recommendation for trainees?

Overall, I would like to really encourage trainees, not only in Anesthesiology, but also in Emergency

Medicine and Intensive Care to attend this meeting—one solely dedicated to Airway Management. My special thanks go to Dr Katherine Gil and Dr Gail Randel.



A Resident’s Perspective of the 2010 SAM Annual Meeting

**Kimberly Schinnerer Cover, M.D. (CA-2)
Anesthesiology and Critical Care Medicine 2010-2011
Johns Hopkins University
Baltimore, Maryland**

Introduction

As a resident participant at last September’s 14th Annual Society for Airway Management Scientific Meeting in Chicago, I had a wonderful experience and plan to continue to attend the meetings in future years.

Impressions of the S.A.M. Annual Meeting

At the conference, “airway providers” (anesthesiologists, emergency medicine physicians, intensivists, and otolaryngologists, to name a few) from all over the U.S. and the world gathered for a meeting of the minds. It was filled with learning opportunities – I was able to attend didactic lectures, a panel, small group discussions, a hands-on Workshop, poster presentations, and patient simulator experiences.

I found some of the most valuable components of the meeting in the hands-on Workshop. A number of tables were set up with a variety of different airway devices. Experts in these devices were stationed at each table, and we moved from table to table trying out new gadgets and learning new techniques with older devices. I felt like a kid in a candy store! I also found that it was a great opportunity to speak with residents and attendings to see what types of educational activities they were participating in at their in-

stitutions. I left with new ideas on how to keep up with new research and continue to hone my technical skills.

Another highlight of the meeting was the cocktail reception at the Willis Tower, formerly the Sears Tower. The reception was a fantastic opportunity to mingle with other practitioners with similar interests. The atmosphere was fun and relaxed with a great view of the Chicago skyline. The most memorable moment of the night occurred when I was talking with one of my attendings and program co-chair, Dr. Lauren Berkow, and she casually mentioned that the other gentleman we had been speaking with was the inventor of the GlideScope. I had no idea that for twenty minutes I had been talking to Dr. Jack Pacey! Considering that the GlideScope is one of my favorite airway tools, I was star-struck. I guess I am just sucker for ingenious intubation modalities.

I would highly recommend the SAM Meeting to other residents, and think they would have as fantastic an experience as I did. Not only is it a great venue to showcase your own work and research, but it also serves as a great opportunity to network with providers with similar interests while learning about the newest advancements in our ever-expanding field.

So! Come on over to SAM 2011 at Scottsdale, Arizona! September 16-18



2011 SAM Annual Meeting

FRIDAY, SEPTEMBER 16, 2011

6:45 – 7:45 am Registration & Continental Breakfast
View Exhibits

7:45 – 8:00 am Opening Statements
Lauren Berkow, MD., Program Chair
Elizabeth C. Behringer, M.D. President,
Society for Airway Management

SESSION I: INNOVATIONS IN EDUCATION AND INFORMATION DISSEMINATION

Moderator: Lorraine Foley, M.D.

8:00 – 8:30 am Perioperative Communication and Handoffs
Lauren Berkow, M.D.

8:30 – 9:00 am Airway Algorithms: How do they differ around the world?
Max Sorbello, M.D.

9:00 – 9:30 am MedicAlert Foundation: Effective dissemination of
critical information
Lynette Mark, M.D.

9:30 – 9:45 am Panel Discussion

9:45 – 10:15 am Poster Viewing / Break/ Visit Exhibits

SESSION II: INNOVATIONS OUTSIDE THE OPERATING ROOM

Moderator: Chris Christodoulou, M.D.

10:15 – 10:35 am CAB instead of ABC: Airway Management within the
new ACLS guidelines
Richard Aghababian, M.D.

10:35 – 10:55 am Extubation and PACU issues in the Obstetric Patient
Maya Suresh, M.D.

10:55 – 11:15 am Extreme Sports: Airway Management in Remote Locations
Irene Osborn, M.D.

11:15 – 11:35 am Airway Issues in the ICU: Critical Events
Elizabeth Behringer, M.D.

11:35 – 12:00 pm Panel Discussion

12:00 – 1:30 pm Lunch on your own
SAM Committee Meetings: Lunch provided for
committee members

SESSION III: CAN WE ACCURATELY PREDICT THE DIFFICULT AIRWAY?

Moderator: Richard Cooper, M.D.

1:30 – 2:00 pm Using Pre-Operative Endoscopy to Predict Difficult
Intubation
William Rosenblatt, M.D.

2:00 – 2:30 pm Predicting the Difficult Pediatric Airway
Maria Matuszczak, M.D.

2:30 – 3:00 pm Can We Predict Difficult Mask Ventilation?
Olivier Langeron, M.D.

3:00 – 3:15 pm Panel Discussion

AGENDA

SESSION IV: HANDS-ON WORKSHOPS & PATIENT SIMULATION

Moderators: Ashutosh Wali, M.D., Irene Osborn, M.D., Richard Levitan,
M.D., Joseph Quinlan, M.D.

3:30 – 6:00 pm Nine Workshop Stations, CHOOSE FIVE (Selection A counts
as 2 choices) Please rank choices from 1-8. Every effort will
be made to assign attendees their top choices, pending
availability. Tickets will be given at the conference with
station assignments. Please arrive at your assigned station
on time

Station Choices:

- A. Fiberoptic Intubation/Airway Anesthesia (60 minutes)
- B. Videolaryngoscopy
- C. Supraglottic Airways
- D. Ultrasound Assessment of the Airway
- E. Surgical Airway
- F. Rigid Laryngoscopes, Bronchoscopes, Stylets,
Extubation devices
- G. Patient Simulator
- H. Pediatric Airway Devices
- I. CPR Training/Oxylator

SAM BUSINESS MEETING

6:00 – 7:30 pm General Membership Meeting

7:30 – 10:30 pm Board of Director's Meeting

2011 SAM
Annual Meeting

SATURDAY, SEPTEMBER 17, 2011

6:45 – 7:30 am View Exhibits, Continental Breakfast

SESSION V: ABSTRACT ORAL PRESENTATIONS

Moderators: Thomas Mort, M.D., David Wong, M.D.

7:30 – 9:20 am Eight Abstract Presentations, SAM Grant Award Presentations

9:20 – 9:30 am Presentation of Awards

9:30 – 10:00 am View Posters/Break/Visit Exhibits

SESSION VI: DISTINGUISHED SPEAKERS FROM AROUND THE GLOBE

Moderator: Chandy Verghese, M.D.

10:00 – 10:30 am DAS Representative: Tracheal Intubation Via a Supraglottic Airway: What Works Well
Ellen O'Sullivan, M.D.

10:30 – 11:15 am Ovassapian Lecture: Major Complications of Airway Management in Anesthesia, ICU and the ED. An Overview of the Results of "NAP4".
Timothy Cook, M.D.

11:15 – 11:45 am International lecturer: Supraglottic Devices as a Part of the Primary Strategy in the Management of Anticipated Difficult Airway - Experiences of Our Team Airway with Some Interesting Cases at MAMC.
Rakesh Kumar, M.D.

11:45 – 12:00 pm Panel Discussion

SESSION VII-A EXPERT'S ROUND TABLE SESSION I (LUNCH INCLUDED)

- 12:00 – 1:00 pm
1. Research in Airway Management - How to Get Started?
Arnd Timmerman, M.D., Timothy Cook, M.D.
 2. Ultrasound Evaluation of the Airway
Michael Seltz Kristensen, M.D., Peter Cheng, M.D.
 3. How Can an OB Specialist Maintain Their Airway Skills?
Maya Suresh, M.D., Ashu Wali, M.D.
 4. Extubation of the Difficult Airway
Elizabeth Behringer M.D., Thomas Mort M.D.
 5. Resident Round Table: Fiberoptic Tips and Tricks
Special Trainee Session: Limited to 20 Trainees – Box lunch included
Carin Hagberg M.D., Marshal Kaplan M.D.

SESSION VII-B PROFESSOR POSTER ROUNDS

1:00 – 2:00 pm

Moderators: Orlando Hung, Olivier Langeron, Chris Christodoulou, Sebastian Russo, Lorraine Foley, Michael Murphy, Richard Levitan, Chandy Verghese, David Wong, Irene Osborn, Lee Akst

AGENDA
AGENDA

SESSION VIII: EXPECTING THE UNEXPECTED

Moderator: Carin Hagberg M.D.

2:00 – 2:30 pm What To Do When Bad Things Happen
Aubrey Maze, M.D.

2:30 – 3:00 pm Delayed Complications of Intubation: The OHLN Perspective
Lee Akst M.D.

3:00 – 3:30 pm A "Hot" Topic: Fire in the Airway
Dietmar Enk, M.D.

3:30 – 3:45 pm Panel Discussion

SESSION IX-A EXPERT'S ROUND TABLE SESSION II

- 4:00 – 5:00 pm
1. What Is Airway Competency and How Should We Measure It?
David Wong, M.D., John Schaeffer, M.D.
 2. The Challenging Pediatric Airway
Maria Matuszczak, M.D., Paul Baker, M.D.
 3. Airway Management of the OSA Patient
Lorraine Foley, M.D., Chris Christodoulou, M.D.
 4. A Lidocaine Cookbook; How to Make Awake Intubation Easier
William Rosenblatt M.D., Irene Osborn M.D.
 5. Airway Equipment and Strategies for the Emergency Department
Maksim Zayarusny, M.D., Richard Levitan, M.D.

SESSION IX-B PROFESSOR POSTER ROUNDS

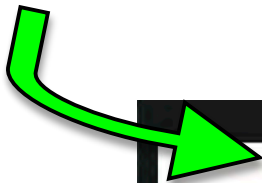
4:00 – 5:00 pm

Moderators: Arnd Timmerman, Elizabeth Behringer, Lynette Mark, Maya Suresh, Carin Hagberg, Marshal Kaplan, Thomas Mort, Aubrey Maze, Peter Cheng, Ashu Wali, Max Sorbello, Richard Cooper

6:00 – 8:00 pm Award Ceremony and Cocktail Reception
Tickets are \$75.00 per person

"Join featured presenters, SAM officers, and new colleagues for a special event Saturday night! Relax and enjoy the opportunity to network with experts in airway management. Hors D'oeuvres will be served and a cash bar is available."

**2011 SAM
Annual Meeting**



SUNDAY, SEPTEMBER 18, 2011

AGENDA

7:00 – 8:00 am View Exhibits/ Continental Breakfast

SESSION X: CURRENT CONTROVERSIES IN AIRWAY MANAGEMENT

Moderator: Elizabeth Behringer M.D.

8:00 – 8:30 am Pro-Con Debate: Are Mannequin Studies Effective in Assessing airway Devices?
Arnd Timmermann, M.D., Richard Cooper, M.D.

8:30 – 9:00 am Pro-Con Debate: Direct Laryngoscopy, Rest in Peace?
Ken Rothfield M.D., Sebastian Russo M.D.

9:00 – 9:30 am Pro-Con Debate: Cricoid Pressure, Good or Bad?
Orlando Hung M.D., Michael Murphy M.D.

9:30 – 9:45 am Panel Discussion

9:45 – 10:00 am Break/Poster Viewing

SESSION XI: DARE TO SHARE: SCARY CASES FROM THE REAL WORLD

Moderator: Irene Osborn, M.D.

10:00 – 10:20 am The ICU
Thomas Mort M.D.

10:20 – 10:40 am The Operating Room
Michael Seltz Kristensen M.D.

10:40 – 11:00 am The Emergency Department
Richard Levitan M.D.

11:00 – 11:20 am The Pediatric Patient
Paul Baker M.D.

11:20 – 11:40 am Panel Discussion

11:40 – 12:00 pm Closing Remarks
Lauren Berkow, M.D., Program Chair
Richard Cooper M.D. 2012 Program Chair
Elizabeth C. Behringer, M.D.,
Immediate Past President, SAM
Thomas Mort, M.D., Incoming President, SAM

Give us a hand?
Will Rosenblatt, MD is inviting SAM members planning to attend the 2011 ASA to help.



Can you spare 1-2 hours to staff the SAM booth at the ASA meeting (to recruit members, discuss SAM, the Forum, etc)? E-mail Will before October 05, 2011 or sign up at the SAM Meeting in Scottsdale.

Participate in our SAM Internet Forum and the SAM Blog

To All SAM MEMBERS

Add to your experience and develop multiple options for patient care!
Keep the Society for Airway management vibrant: We invite you to join our committees, send in your ideas for meetings, the Internet SAM Forum, and the Airway Gazette.
Your opinion and participation can always help us improve.

Disclaimer:

Published manuscripts in the Gazette are not necessarily reflective of the views of the Gazette or the Society for Airway Management.

E-LIGHTS OF THE SAM FORUM

Felipe Urdaneta, M.D.
MRVAMC/University of Florida

PSI = pounds/inch² DL = Direct laryngoscopy
AEC = Airway Exchange Catheter
JV = Jet ventilation VL = Videolaryngoscopy
HFJV = High frequency JV ILMA = Intubating LMA
FDA = Food & Drug Administration
ICU = Intensive Care Unit ENT = Ear, Nose & Throat
BVM = bag-valve-mask OR = Operating room
PACU = Postanesthetic care unit
ACDF = Anterior cervical discectomy & fusion
CEA = Carotid endarterectomy
AFOI = Awake fiberoptic intubation
SSEP = Somatosensory evoked potentials
MEP = Motor EP TIVA = Total intravenous anesth



❖ **Can you use the Cook exchange catheter electively for jet ventilation? Recently I was asked this question by someone that used Jet ventilation during a case but the patient developed a pneumo-thorax. What is a good recipe for the use of jet ventilation? What is a good recommended psi to start with? Does the pressure chosen change depending on whether jet is being used via a needle, Hunsaker or a exchange catheter?**

Tracey Straker, MD

– The risk of a pneumothorax with jet ventilation through a catheter is inversely related to the number of end/side holes of the catheter itself. Even with short inspiratory times and long expiratory times, the gas mixture emerges at a very high velocity, sufficient to dissect through the tracheal or bronchial mucosa. My recommendation is to use short inspiratory times with the lowest driving pressure that allows chest expansion; also to use an expiratory time sufficient to allow the chest to recoil to an appropriate expiratory volume. If the SPO₂ is down after a couple of breaths they will generally recover.

Richard Cooper, MD

– Most barotrampa episodes occur when there is coughing or laryngospasm during the use of jet ventilation, hence the argument for profound neuromuscular block.

William Rosenblatt, MD

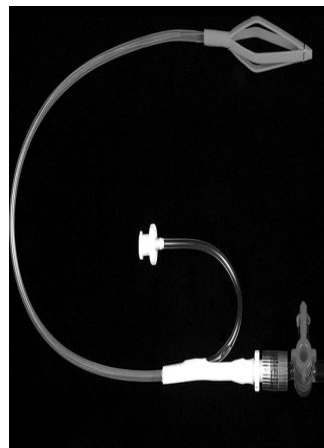
– Personally I have also experienced a case of pneumothorax when using jet over an exchange catheter. I believe the catheter migrated in to the right main stem bronchus. I prefer the Hunsaker Jet ventilation catheter (Xomed-Medtronic). It difuses the jet efficiently, is laser safe, and the stabilizing fins are compressible enough to pass lesions, if positioned by the surgeon. My usual settings on the Accutronic jet vent (automated system) is 70 jets/minute, 22-25 psi.

James C. DuCanto, MD

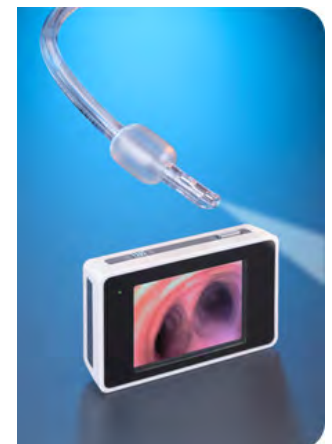
– The AEC's Cook markets were not designed for HFJV

or manual low frequency JV. The diameter and resistance of the catheter varies from size to size so that the time to equalize at higher, more dangerous pressures, also varies. It would be best to use equipment designed for HFJV, like the Hunsaker tube, or the Carden "tube" (to use a name from the past). I think the problem can be fixed by using the pressure cut off or limit sensor from the distal end of the jet system on the ventilator, shortening the inspiratory time and limiting the driving pressure to avoid high distal airway pressure. Air trapping is always a risk and, at any "I" time or driving pressure, may cause barotrauma in limited/enclosed space like a distal bronchus.

Charlie Watson, MD



Hunsaker



ETView™



❖ **What do you think about the endotracheal tube embedded with a mini camera and light source that provides indirect vision, the ETView™?**

Mauricio Malito, MD

– I also have a couple of questions about the device: how is it steered when performing a difficult intubation? Since this may be a significant factor in some patients, how much of the lumen does the video portion occupy? Does it allow for effective suction? What

about work of breathing when weaning a patient?

Marshal B. Kaplan, MD

– The device was originally reviewed by the FDA in 2005, then again in 2008. No clinical data was ever required. The approved indications for use were as follows: "The ETVIEW Tracheoscopic Ventilation Tube (TVTTM) is intended for intubation procedures as a temporary artificial airway in adults requiring mechanical ventilation for oral and nasal intubations. The TVTTM System is indicated for viewing during non-difficult and difficult intubation procedures, for verifying ETT placement and repositioning, for viewing during suctioning and for general inspection of the airway."

Richard E. Galgon, MD

– Although the device is promoted for the ICU, its design for this purpose is questionable. The benefit of continuous visualization of the trachea without the need for a bronchoscope or interruption of ventilation is speculative, and it doesn't have the proven benefit of decreasing ventilator-associated pneumonia like the Hi-low Evac ETT, since it does not have the ability to suction above the cuff. The camera takes up to 18% of the lumen of a 7 ETT if it were circular; on the early models that I used the distal aperture of the EtView becomes elliptical to accommodate the camera. The manufacturer does not recommend using lubricant in the interior the tube, using a stylet with a diameter greater than 4 mm or a suction catheter larger than 10 French into the lumen.

James W. Heitz, MD

– I have been using the ETVIEW for a while. The manufacturer suggests the use of an introducer for intubation but this is not practiced. Secretions impair the view of the camera. I suggest to use a combination of an ILMA and the ETVIEW. The recommended insertion of the ETVIEW is by reversing the normal curvature of the ETVIEW. One of the advantages with this technique is the fact that one can look at the relationship between the SGA and the laryngeal inlet prior to placing the tube. However, one of the disadvantages is its cost.

Luis Gaitini, MD



*** I have a patient with an uncuffed trach tube coming for surgery & requiring general anesthesia. To complicate matters the patient is morbidly obese**

and unable to co-operate due to hypoxic encephalopathy. I am concerned switching to a cuffed tracheostomy tube could be challenging. Any ideas?

Linda Doberczak, MD

–If the tracheostomy has been in place for a period of time (i.e. the tract is well established), I usually remove the trach. and place or suture an armored tube for the duration of the anesthesia. If there is any doubt, I would recommend having ENT surgeon available to assist if needed.

Lauren Berkow, MD

– Simple approach would be to topicalize the airway through the trach. (4% lidocaine 6 ml), perform an inhalation induction, then exchange the trach. for either a cuffed trach or a cuffed tracheal tube with a tube exchanger of appropriate size. Inhalational gas will give you the sedation you need to achieve this exchange (after the topical anesthetic) with the safety of a spontaneously breathing patient. If you are uncertain, have an ENT there to assist you.

James DuCanto, MD

– I recommend using airway fundamentals: 1) Optimally position the patient to allow you to better manage the airway from above if something does not go right. 2) Pre-oxygenate 3) Have assistance at the bedside 4) Have backup and alternative devices readily available (bougie or tube exchanger, BVM, LMA's) just in case.

Thomas Mort, MD

– I agree with the mentioned techniques and rationale. I frequently take care of patients that have tracheostomies and I prefer to have a more secure airway in place have. I usually use 4% lidocaine via the stoma (induces coughing) and then place the armored ETT with the patient breathing spontaneously. You can also use a Patil intubation guide (whistle) and you hear the sound as you enter the trachea, then you can proceed with GA and muscle relaxants, etc.

Irene Osborn, MD

– Cook Medical makes a specific tracheostomy exchange catheter called the Weinmann Tracheostomy Exchange Catheter. It includes a small stomal dilator as well as a shorter version of the standard airway exchange catheter. It is extremely useful in tracheostomy exchange of either a new tracheostomy tract that is prone to close and in difficult airway patients.

Elizabeth Cordes Behringer, MD

Visit <http://www.samhq.com> to find the SAM Gazette Publishing Guidelines.



Weinmann Tracheostomy Exchange Catheter



*** Do people always remove dentures before a general anesthetic? I have an experienced colleague that leaves dentures in place when the classic LMA is going to be used, and claims a better fit. I've tried this a few times and it did fit very well.**

Allan Goldman, MD

– It used to be our custom to remove all patient's dentures prior to coming back to the OR. Now with the evidence that mask ventilation can be more difficult in the edentulous patient (although we knew this clinically to be true), we leave dentures in until mask ventilation is complete, either before laryngoscopy or LMA insertion. I agree that the fit may be improved but have heard reports of dentures becoming dislodged and causing problems upon extubation and recovery.

Carin A. Hagberg, MD

– I have observed this as well and have left dentures in for short cases when using the LMA classic or flexible. Just be careful with the LMA removal at the end.

Irene Osborn, MD

– For general anesthetics I take dentures out. My BMV on induction is a test for my ability to mask ventilate upon extubation when dentures will be out. It is usually in the post-extubation period in the OR, transport or PACU that we can get in trouble.

Adrian A. Matic, MD



*** What are some useful tips to successfully transition from a Laryngeal tube to a secure ETT? My practice has been to simply remove it and gamble that my airway skills were better than the prehospital provider who may have failed DL/VL and used the King as a rescue device but this always makes me uneasy. Can you pass a flexible scope through it and use for example an Aintree catheter?**

Michael Aziz, MD

– Indeed you can pass an Aintree catheter via a flexible scope and the laryngeal tube opening, remove laryngeal tube leaving the Aintree in situ and then pass an ETT over the Aintree catheter.

Tracey Straker, MD

– We have used the Arndt Exchange Catheter Set successfully in several cases. We use a pediatric flexible scope. The wire and exchange catheter provide a longer working length than the Aintree catheter.

Richard E. Galgon, MD

– We are working on a project using a Pentax AWS to intubate around the Laryngeal Tube in situ. Because the two cuffs are linked by a common pilot balloon, air can be removed from the pharyngeal cuff while maintaining the patency of the esophageal cuff when the Pentax VL is shoe-horned into the space between the pharyngeal balloon and the tongue. As the Shoe-horn maneuver continues, the endoscopist deliberately compresses the pharyngeal balloon with the AWS, allowing it both to slip past this pharyngeal balloon and keep the esophageal cuff inflated.

James C. DuCanto, MD

– I do the same maneuver described with an Airtraq. We deflate the King in increments just until we can pass the Airtraq and maintain ventilation throughout. Being able to oxygenate the patient and the seeing your tube pass the vocal cords are the advantages of this technique whether you use the Airtraq or the Airway Scope, but heavily soiled airways can make visualising the structures difficult.

Bettina U. Schmitz, MD

– Exchange of a combitube has the same concerns. We typically change the Combitube with the use of video-laryngoscopy.

Carin A. Hagberg, MD
(SIC)

Send in your TIPS and TRICKS by e-mailing: k-gil@northwestern.edu

Tips & Tricks

Check the Endotracheal Tube Position First, Then Remove the Airtraq!

Adrian Matic, M.D.
University of Wisconsin
Madison, Wisconsin



As we progress with expanding our airway management knowledge we should explore all the specific steps involved in successful instrumentation with the new airway devices.

A significant point, that may be relevant for any channeled videolaryngoscope, has emerged from my observation while teaching intubation with the Airtraq. Once the trachea has been intubated, I have noticed that the (novice) practitioner consistently disconnects the endotracheal tube (ETT) and removes the Airtraq from the oropharynx before checking the endotracheal tube position. This is a suboptimal sequence because the removal of the Airtraq will/may:

- Delay oxygenation of the patient
- Remove a means of quickly checking ETT position

- Remove the possibility of using the Airtraq to reposition the ETT
- Expose the patient to possible accidental extubation and/or silent regurgitation

Proposed correct sequence after intubation for Airtraq removal: Ventilate. Afterward, the ETT position should be confirmed with the Airtraq and ETT held firmly in situ (Fig. 1). Then, under controlled conditions, while ventilating the patient, the ETT should be disconnected and the Airtraq removed (Fig. 2).

The routine: 1) intubate 2) ventilate 3) confirm ETT placement and 4) remove the Airtraq will pay dividends; especially in emergency situations when hypoxemia is present and should be addressed immediately and when delayed ventilation is catastrophic.

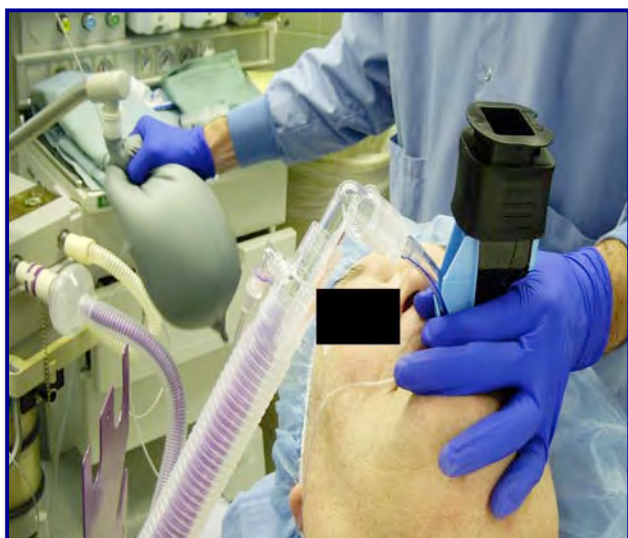


FIG. 1: ETT position checked with the Airtraq and ETT held firmly in situ.



FIGURE 2: ETT disconnected and Airtraq removed while ventilating the patient

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The Airway Gazette

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15th
ANNIVERSARY

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Arizona: Skills, Science, Sunshine,
Swimming, Soothing, Sustenance
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E-Lights of the SAM Forum
Tips and Tricks: Saving the Nose!
Application

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Editorial Expressions

Dear fellow SAM colleagues,

This will be a great issue for those of you who are history buffs. I've got a colleague at Northwestern who can probably recite rings of history around most people. Dr. Rajesh Haridas is from a not-for-profit institution called Mildura Private Hospital (is that an oxymoron?) in Australia. He was a Wood Library-Museum (WLM) fellow previously, and this year, is again a recipient. Having a number of publications and presentations, he has agreed to provide the Airway Gazette with a series of historical vignettes.

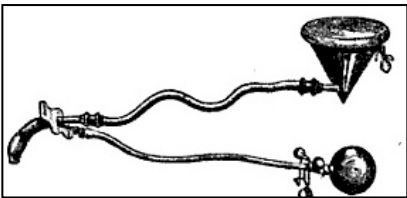
Interestingly, the WLM fellowship is open to anyone interested in the history of anesthesiology, from attending anesthesiologists on up to medical students; i.e. to those with a "developed interest in the history of anesthesia or library and museum research." The WLM supports recipients monetarily for "up to three weeks of scholarly and historical research at the Wood Library-Museum pertaining to the specialty of anesthesiology." Check out their website if you have a bent toward this kind of endeavour. I especially liked their guidelines indicating that applications must be sent in sextuplicate.

http://www.woodlibrarymuseum.org/fellowship/fellowship_guide.php

This history of intubation describes Sir William Macewen's work in relation to a number of other well-known figures. Various ETT-type cannula devices were developed and routinely inserted through tracheotomy openings.

Trendelenburg's cannula differed from others in that it had an inflatable rubber bag (Fig).¹ One of its problems was the possibility of rupture or dislodgment of the "bag and its propensity to promote coughing." The picture is from Binnie's article.¹

Other ETT-type devices (e.g. Hahn's or Kocher's cannulae)^{1,2} used at that time, were occlusive to the



windpipe by using a layer of compressed sponge that expanded as fluids were absorbed. These devices also had significant problems: failure to complete tracheal tamponade or the possibility of septic complications. To add to the situation, both types of cannulae were rather complex in preparation.

Investigating all of this was pretty interesting, as were the case descriptions. But, I have to admit that in these tracheotomized patients, once I got to the part about nourishment for the first 48 hours by enema, I decided to pursue other topics.

References: ¹ Binnie JF. *Manual of Operative Surgery*. Blakiston, 1906; 182-183 ² *Annals of Surgery*. 1897. Volume 25. J.B. Lippincott

Scouring through my mailbox for anyone sending Tips and Tricks resulted in a big zero. So you are all doomed to suffer through my original idea for avoiding nasal ischemia due to excessive intra-operative nasal pressure from a nasotracheal tube. Infrequently, I end up in the Ear, Nose, and Throat suite, but whenever I do and use this trick, the surgeons love it. Make sure that the foam pad is not too small, is applied well, and that there is fixation of the system to a sponge or towel under the ETT extension and circuit to prevent pulling back on the nose...even the best plans can be thwarted if details are ignored.

The SAM meeting is coming up shortly...less than two weeks. This fifteenth anniversary of our Society should be spectacular. There are still spots available for the SAM Meeting. It is a wonderful blend and intermingling of experts among members at all stages of learning. Check the SAM website for selection of Workshop/Round Table preferences. Send in your SAM anniversary pictures (see P.15)

Please send us letters, ideas, case reports, and studies for future issues (unless you want to be doomed again). SAM is all-inclusive and seriously promotes member participation.

Regards...
Katherine Gil, MD
Editor-In-Chief



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Sir William Macewen and the First Orotracheal Intubation for Anesthesia and Surgery

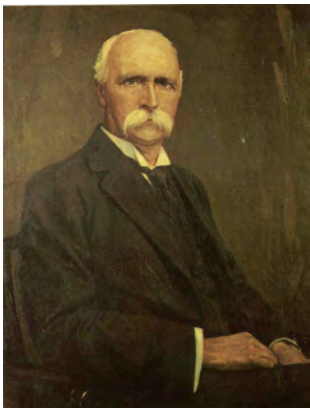
Rajesh P. Haridas, MBChB

Mildura Private Hospital, Mildura, Australia

International
Corner

In 1880, Sir William Macewen (1848-1924) reported four cases of awake oro-tracheal intubation that were performed between July and December 1878.^{1,2}

Orotracheal intubation was used for anesthesia and surgery in only the first of Macewen's four cases. His second and third patients had tracheal intubation to relieve upper airway obstruction. The fourth patient had been intubated preoperatively in the ward, but the patient removed the tracheal tube before the induction of anesthesia. The patient appeared to have had a cardiac arrest shortly after induction of anesthesia with chloroform, and he succumbed without any attempt at tracheal intubation.



Portrait of Sir William Macewen – painted by Charles R. Dowell. Image courtesy of the Royal College of Physicians and Surgeons of Glasgow, Glasgow, UK.

Macewen was then a surgeon in Glasgow, Scotland. He was responsible for a number of advances in surgery - especially in neurosurgery, orthopedic surgery, and thoracic surgery. Macewen went on to become a Professor of Clinical Surgery, and in 1892, he became the Regius Professor of Surgery at the University of Glasgow. He was knighted in 1902.³

Since the eighteenth century, oro-tracheal intubation had occasionally been used during resuscitation. Around 1880, the preferred technique of controlling and protecting the airway during surgery was through a tracheotomy (tracheostomy) and the use of Trendelenburg's cannula; a technique developed by Friedrich Trendelenburg (1844-1924).

Macewen was aware of previous uses of tracheal intubation for airway obstruction caused by edema or infection. He also conducted post-mortem experiments of oro-tracheal and nasotracheal intubation.

Nasotracheal intubation was found to be much more difficult than oro-tracheal intubation. He stated in his first article that "*it was found impossible to introduce a nasal unarmed catheter through the nose into the trachea by any manipulation outside the mouth.*"¹

Macewen also stated that a nasal tube could be guided into the trachea by introducing a finger into the oropharynx, or by using a stilette in the nasal tube. "*A catheter, having a strong properly curved stilette, after considerable labour and many efforts, might find its way into the larynx; but even this could not be depended on.*"¹

The oro-tracheal intubations described by Macewen were performed in awake patients. They were facilitated by "*depressing the epiglottis on the tongue, and so guiding the tube over the back of the finger into the larynx.*"¹ There were no local anesthetic agents available at that time - the use of cocaine for topical anesthesia in ocular surgery was first demonstrated by Karl Köller (1857-1944) in 1884.

The first patient in Macewen's series of four oro-tracheal intubations follows:

"*CASE I — Removal of Epithelioma from Pharynx and Base of Tongue: Introduction of Tube into Trachea through Mouth to occlude Haemorrhage from Larynx, and for administration of Anaesthetic.*"¹

Here, the patient was a 55 year-old male, with an ulcerated lesion on the right side of base of the tongue and the right fauces. The patient had been symptomatic for over a year and a trial of "iodide of potassium" had been unsuccessful. This patient had an awake tracheal intubation prior to the induction of general anesthesia with chloroform. The operation was the removal of an epithelioma from the pharynx.*

The next three paragraphs are quoted from Macewen's first article on tracheal intubation.¹ It should be noted that Macewen discusses several ways of preventing the entry of blood into the larynx, including the use of an inflatable cuff. The size of the tracheal tube was not documented. The anesthetic was administered by Macewen's house-surgeon, Dr Symington.

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"With the patient's concurrence, it was resolved to remove the growth. As it was an operation that would cause considerable bleeding, precautions had to be taken to secure the air-passages from occlusion. Hitherto this had been effected by opening the wind-pipe, by laryngotomy, and the introduction of Trendelenburg's tampon-cannula. Instead of this, I had determined, should an opportunity present, to introduce into the trachea, by way of the mouth, a tube, which would extend beyond the vocal cords, and through which the patient would respire. The upper laryngeal opening could then be plugged outside this tube, so as to prevent the entrance of blood into the larynx. The plug could then be effected in various ways, by causing the tracheal tube to perforate a close sponge of suitable size, which, after the tracheal tube had been introduced, could then be fixed in the laryngeal orifice; by fixing to the tube, at a convenient part, a piece of fine muslin or other material, which would act as the canule à chemise used after lithotomy; by inflation of a circular closely fitting bag, etc."¹

"Preparatory to the operation, a tube was several times inserted through the mouth into the trachea, beyond the vocal cords; and it was found that, with the exception of the cough which ensued immediately on its insertion, he bore the tube sufficiently well to warrant the success of the procedure. He could breathe freely through it, and the mucus expectorated was expelled through the tube with considerable force."¹

"The operation was performed on July 5th, 1878. The usual cough followed the introduction of the tube; but it ceased as soon as he received a few whiffs of chloroform, and long before he became constitutionally affected by the drug; the chloroform seemed to exercise a local sedative effect. The upper opening of the larynx was stuffed with a sponge to prevent the entrance of blood. The tube projected several inches beyond the mouth, thus enabling the administration of the anaesthetic to be continued uninterruptedly during the whole operation, without in any way interfering with the manipulative procedure. The entrance and exit of air through the tube was both felt and heard distinctly, so that Dr. Symington (who administered the chloroform) had a ready guide to the state of the respirations. After the operation was finished, when the haemorrhage had ceased and the patient had regained consciousness, the tube was withdrawn, it having acted throughout without the slightest hitch."¹

The operation involved an incision through the

right cheek, division of the mandible and excision of the diseased tissues. The jaw "was afterwards drilled, and coupled by two strong silver wire stitches."¹ The wires were removed when the jaw was united, and the patient was sent to the "Convalescent Home".

Macewen reported that the patient's voice was unaffected by the tube. He concluded the description of this case with the following remarks: "It may be noticed that the tube answered all the purposes for which it was intended. 1) The chloroform was easily, uniformly, and uninterruptedly administered during the whole operation. 2) The administration of the chloroform in no way interfered with the performance of the operation. 3) The ingress and egress of air through the tube were both felt and heard, so that the administrator had a ready indication of the state of the respiration. 4) No blood entered the larynx. 5) The after-result was excellent."¹

In Macewen's second article, he discusses how to recognize that a tube was in the trachea, and mentions inspection of the airway with a laryngoscope, but there is no indication in his case reports that a laryngoscope was used prior to the intubations.² "How to recognise that the Instrument is in the Trachea. - How would one recognise the presence of the instrument in the trachea? 1) By finding the instrument pass over the first ring or two of the trachea; 2) By finding that the air flows into the tube during inspiration and out during expiration - the opposite being the case if it be in the oesophagus; 3) By the mucous expectoration being expelled from it; 4) By the negative signs that it is not in the oesophagus or stomach - i.e., blowing up the stomach through the tube, etc. Before introducing the tubes, an examination by the laryngoscope ought to be made to ascertain the precise state of the parts."²

Macewen's use of orotracheal intubation appears to have been a well-researched and considered procedure. He practiced the technique on cadavers, and performed trial intubations on the first patient. He was thus able to reassure the patient, and gain his cooperation in this pioneering technique. Macewen later designed several flexo-metallic tubes for insertion into the larynx and trachea.³

* The cavity at the back of the mouth, leading into the pharynx.

References

¹ Macewen W. Clinical observations on the introduction of tracheal tubes by the mouth instead of performing tracheotomy or laryngotomy. *BMJ.* 1880; 2: 122-124

² Macewen W. Clinical observations on the introduction of tracheal tubes by the mouth, instead of performing tracheotomy or laryngotomy. *BMJ.* 1880; 2: 163-165

³ James CDT. *Sir William Macewen and anaesthesia. Anaesthesia.* 1974; 29: 743-753

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Dear SAM members,

It is still not too late to sign up to attend this year's annual meeting in Scottsdale, Arizona September 16-18, 2011 at the JW Marriott Camelback Inn. Just imagine, instead of worrying, you could be enjoying the beautiful Arizona weather while listening to lectures from world renowned Airway Experts! We have an exciting line up of international speakers this year and over 40 high quality abstracts and posters, plus round table discussions and the always popular Hands-On Workshops.

Hope to see you in Scottsdale!

Lauren Berkow, 2011 SAM Annual Meeting Program Director



SAM MEETING AGENDA

FRIDAY, SEPTEMBER 16, 2011

6:45 – 7:45 am **Registration & Continental Breakfast View Exhibits**
7:45 – 8:00 am **Opening Statements**
 Lauren Berkow, MD., Program Chair
 Elizabeth C. Behringer, M.D. President,
 Society for Airway Management

SESSION I: INNOVATIONS IN EDUCATION AND INFORMATION DISSEMINATION

Moderator: **Lorraine Foley, M.D.**

8:00 – 8:30 am **Perioperative Communication and Handoffs**
 Lauren Berkow, M.D.

8:30 – 9:00 am **Airway Algorithms: How Do They Differ Around the World?**
 Max Sorbello, M.D.

9:00 – 9:30 am **MedicAlert Foundation: Effective Dissemination of Critical Information**
 Lynette Mark, M.D.

9:30 – 9:45 am **Panel Discussion**
9:45 – 10:15 am **Poster Viewing / Break/ Visit Exhibits**

SESSION II: INNOVATIONS OUTSIDE THE OPERATING ROOM

Moderator: **Chris Christodoulou, M.D.**

10:15 – 10:35 am **CAB Instead of ABC: Airway Management Within the New ACLS Guidelines**
 Richard Aghababian, M.D.

10:35 – 10:55 am **Extubation and PACU Issues in the Obstetric Patient**
 Maya Suresh, M.D.

10:55 – 11:15 am **Extreme Sports: Airway Management in Remote Locations**
 Irene Osborn, M.D.

11:15 – 11:35 am **Airway Issues in the ICU: Critical Events**
 Elizabeth Behringer, M.D.

11:35 – 12:00 pm **Panel Discussion**
12:00 – 1:30 pm **Lunch on your own**
 SAM Committee Meetings: Lunch provided for committee members

SESSION III: CAN WE ACCURATELY PREDICT THE DIFFICULT AIRWAY?

Moderator:	Richard Cooper, M.D.
1:30 – 2:00 pm	Using Pre-Operative Endoscopy to Predict Difficult Intubation William Rosenblatt, M.D.
2:00 – 2:30 pm	Predicting the Difficult Pediatric Airway Maria Matuszczak, M.D.
2:30 – 3:00 pm	Can We Predict Difficult Mask Ventilation? Olivier Langeron, M.D.
3:00 – 3:15 pm	Panel Discussion

SESSION IV: HANDS-ON WORKSHOPS & PATIENT SIMULATION

Moderators:	Ashutosh Wall, M.D., Irene Osborn, M.D., Richard Levitan, M.D., Joseph Quinlan, M.D.
3:30 – 6:00 pm	Nine Workshop Stations: CHOOSE FIVE (Selection A counts as 2 choices) Please rank choices from 1-5. Every effort will be made to assign attendees their top choices, pending availability. Tickets will be given at the conference with station assignments. Please arrive at your assigned station on time. Station Choices: A. Fiberoptic Intubation/Airway Anesthesia (60 minutes) B. Videolaryngoscopy C. Supraglottic Airways D. Ultrasound Assessment of the Airway E. Surgical Airway F. Rigid Laryngoscopes, Bronchoscopes, Stylets, Extubation Devices G. Patient Simulator H. Pediatric Airway Devices I. CPR Training/Oxylator

SAM BUSINESS MEETING

6:00 – 7:30 pm	GENERAL MEMBERSHIP MEETING
7:30 – 10:30 pm	BOARD OF DIRECTOR'S MEETING

SATURDAY, SEPTEMBER 17, 2011

6:45 – 7:30 am View Exhibits, Continental Breakfast

SESSION V: ABSTRACT ORAL PRESENTATIONS

Moderators: Thomas Mort, M.D., David Wong, M.D.

7:30 – 9:20 am Eight abstract Presentations
SAM grant award Presentations
William Rosenblatt, M.D., Tracey Straker, M.D.

9:20 – 9:30 am Presentation of Awards

9:30 – 10:00 am View Posters/Break/Visit Exhibits

SESSION VI: DISTINGUISHED SPEAKERS FROM AROUND THE GLOBE

Moderator: Chandy Verghese, M.D.

10:00 – 10:30 am DAS Representative: Tracheal Intubation Via a Supraglottic Airway:
What Works Well
Ellen O'Sullivan, M.D.

10:30 – 11:15 am Ovassapian Lecture: Major Complications of Airway Management in
Anesthesia, ICU and the ED. An Overview of the Results of "NAP4".
Timothy Cook, M.D.

11:15 – 11:45 am International Lecturer: Supraglottic Devices as a Part of the Primary
Strategy in the Management of Anticipated Difficult Airway - Experiences
of Our Team Airway with Some Interesting Cases at MAMC.
Rakesh Kumar, M.D.

11:45 – 12:00 pm Panel Discussion

SESSION VII-A: EXPERTS' ROUND TABLE SESSION I (LUNCH INCLUDED)

- 12:00 – 1:00 pm
1. Research in airway management - How to get Started?
Arnd Timmerman, M.D., Timothy Cook, M.D.
 2. Ultrasound Evaluation of the Airway
Michael Seltz Kristensen, M.D., Peter Cheng, M.D.
 3. How Can OB Specialists Maintain Their Airway Skills?
Maya Suresh, M.D., Ashutosh Wali, M.D.
 4. Extubation of the difficult airway
Elizabeth Behringer, M.D., Thomas Mort M.D.
 5. Resident Round table: Fiberoptic Tips and Tricks
Special trainee session: Limited to 20 trainees – Box lunch included
Carin Hagberg M.D., Marshal Kaplan M.D.

SESSION VII-B: PROFESSOR POSTER ROUNDS

Moderators: Orlando Hung, M.D., Olivier Langeron, M.D., Chris Christodoulou, M.D.,
1:00 – 2:00 pm Sebastian Russo, M.D., Lorraine Foley, M.D., Michael Murphy, M.D.,
Richard Levitan, M.D., Chandy Verghese, M.D., David Wong, M.D., Irene
Osborn, M.D., Lee Akst, M.D.

SESSION VIII: EXPECTING THE UNEXPECTED

Moderator: Carin Hagberg, M.D.

2:00 – 2:30 pm **What to do When Bad Things Happen**
Aubrey Maze, M.D.

2:30 – 3:00 pm **Delayed Complications of Intubation: The OHLN Perspective**
Lee Akst, M.D.

3:00 – 3:30 pm **A “Hot” Topic: Fire in the Airway**
Dietmar Enk, M.D.

3:30 – 3:45 pm **Panel Discussion**

SESSION IX-A: EXPERTS’ ROUND TABLE SESSION II

4:00 – 5:00 pm

1. **What is Airway Competency and How Should We measure it?**
David Wong, M.D., John Schaeffer, M.D.
2. **The Challenging Pediatric airway**
Maria Matuszczak, M.D., Paul Baker, M.D.
3. **Airway Management of the OSA Patient**
Lorraine Foley, M.D., Chris Christodoulou, M.D.
4. **A Lidocaine Cookbook; How to Make Awake Intubation Easier**
William Rosenblatt M.D., Irene Osborn M.D.
5. **Airway Equipment and Strategies for the Emergency Department**
Maksim Zayaruzny, M.D., Richard Levitan, M.D.

SESSION IX-B: PROFESSOR POSTER ROUNDS

Moderators: Arnd Timmerman, M.D., Elizabeth Behringer, M.D., Lynette Mark, M.D.,
4:00 – 5:00 pm Maya Suresh, M.D., Carin Hagberg, M.D., Marshal Kaplan, M.D., Thomas
Mort, M.D., Aubrey Maze, M.D., Peter Cheng, M.D., Ashutosh Wali, M.D.,
Max Sorbello, M.D., Richard Cooper, M.D.

6:00 – 8:00 PM

AWARD CEREMONY AND COCKTAIL RECEPTION:

Tickets are \$75.00 per person. “Join featured presenters, SAM officers, and new colleagues for a special event Saturday night! Relax and enjoy the opportunity to network with experts in airway management. Hors D’oeuvres will be served and a cash bar is available.”

SUNDAY, SEPTEMBER 18, 2011

7:00 – 8:00 am View Exhibits/ Continental Breakfast

SESSION X: CURRENT CONTROVERSIES IN AIRWAY MANAGEMENT

- Moderator:** Elizabeth Behringer, M.D.
- 8:00 – 8:30 am** Pro-Con Debate: Are Mannequin Studies Effective in Assessing Airway Devices?
Arnd Timmermann, M.D., Richard Cooper, M.D.
- 8:30 – 9:00 am** Pro-Con Debate: Direct Laryngoscopy, Rest In Peace?
Ken Rothfield M.D., Sebastian Russo M.D.
- 9:00 – 9:30 am** Pro-Con debate: Cricoid Pressure, Good or Bad?
Orlando Hung M.D., Michael Murphy M.D.
- 9:30 – 9:45 am** Panel Discussion
- 9:45 – 10:00 am** Break/View Posters

SESSION XI: DARE TO SHARE: SCARY CASES FROM THE REAL WORLD

- Moderator:** Irene Osborn, M.D.
- 10:00 – 10:20 am** The ICU
Thomas Mort, M.D.
- 10:20 – 10:40 am** The Operating Room
Michael Seltz Kristensen, M.D.
- 10:40 – 11:00 am** The Emergency department
Richard Levitan, M.D.
- 11:00 – 11:20 am** The Pediatric Patient
Paul Baker, M.D.
- 11:20 – 11:40 am** Panel Discussion
- 11:40 – 12:00 pm** **CLOSING REMARKS**

Lauren Berkow, M.D., Program Chair
Richard Cooper, M.D. 2012 Program Chair
Elizabeth C. Behringer, M.D., Immediate Past President
Thomas Mort, M.D., Incoming President, SAM

Give us a hand?

Will Rosenblatt, MD is inviting SAM members planning to attend the 2011 ASA to help.



Can you spare 1-2 hours to staff the SAM booth at the ASA meeting (to recruit members, discuss SAM, the Forum, etc)? E-mail Will before October 05, 2011 or sign up at the SAM Meeting in Scottsdale.

Several of the session leaders have changed...
Please check at the meeting.

E-LIGHTS OF THE SAM FORUM

Felipe Urdaneta, M.D.
MRVAMC/University of Florida

ACDF = Anterior cervical discectomy and fusion
CEA = Carotid endarterectomy
PACU = Postanesthetic care unit
ICU = Intensive Care Unit
AFOI = Awake fiberoptic intubation
SSEP = Somatosensory evoked potentials
MEP = Motor EP TIVA = Total intravenous anesth
RCT = Randomized control trial
DL = RL = Direct or rigid laryngoscopy
VL = Videolaryngoscopy
ETT = ET = Endotracheal tube



✱ **Recently I was made aware of a case whereby a patient had a one level elective anterior cervical decompression and fusion, that died six hours post operatively. The patient was extubated 1 hr postop, was talking to his family and somehow decompensated rapidly before his untimely death. I asked the experienced practitioner in charge of the case why he extubated the patient and he stated that in his practice he was used to immediate extubation if the procedure involved only one level and to leave the patient intubated for at least 24 hours if more than one level was involved. Is there anyone following this practice? I do these cases almost 4-5 times a month and my general practice is to keep them all intubated for at least 24 hrs postop under sedation especially for cases that end late in the afternoon and evening cases.**

Rudolf Mononyane, M.D.

– I have been involved in similar cases and I am always amazed at how quickly edema forms in the supraglottic mucosa and how the anatomy can become completely distorted even in cases that had an easy intubation at the start of the case.

Eric Hodgson, M.D.

– A great number of ACDF's are being performed in U.S with instrumentation, and many multilevel operations last for 2-4 hours. We are more conservative about extubation after the long ones or in 'high risk' patients than after brief ones. There are probably 4-5 a week at our moderately sized urban community teaching hospital. There must be some differences in technique. We are always concerned but fortunately have only experienced post-operative edema in a very few cases, and only have had to reintubate occasionally. I think there are no hard or fast rules. Surgical technique plays a role and reported experience may well be related to the operators and technique 'in vogue' at their centers.

Charles Watson, M.D.

– I have seen one wound in which the patient was suffering a complete airway obstruction (awake and conscious), and was not able to breathe, this largely resolved with wound decompression, plus debridement of the

wound; the surgeon reached into the wound and removed a sizeable amount of clotted blood.

Jim DuCanto, M.D.

– In the case described it appeared as if post-operative hematoma was the culprit. Another cause of airway compromise in the post operative period is from supraglottic edema which is different from a hematoma. I did help in the rescue of one of these some years ago, but fortunately it does not happen often. I think that cautious attention to extubation, leak test, considering an exchange catheter should be part of the practice. Has anyone been impressed by the reduction of swelling with the use of intraoperative steroids with upper airway surgery? I believe the literature is mixed.

William Rosenblatt, M.D.

– Our group does a large volume of ACDF, CEA and thyroidectomy cases. The vast majority of these patients are extubated postoperatively but all of them are required to remain in the PACU under close observation (with an anesthesiologist and difficult airway cart nearby) for 10-12 hours. Depending on co-morbidities and intraoperative concerns, some require overnight observation in the ICU. As an intensivist/anesthesiologist I've seen about a half a dozen postoperative neck hematomas and one horrible combination neck hematoma and retropharyngeal hematoma during my career. Airway management has been by AFOI, LMA as a conduit for FOI or Surgical airway.

It can often be difficult to delineate the tracheal anatomy due the hematoma and edema. Identifying the cricothyroid membrane may be impossible. The patients that require urgent and challenging airway management are insidious and often take several hours to manifest themselves with the symptoms as described earlier. Either venous oozing or small arterial bleeds can take several hours to develop and cause identifiable symptomatology (despite the presence of a drain) due to the reasonable capacitance of the tissues of the neck.

It seems to me that these patients often get into trouble in unmonitored settings where personnel are not familiar with this issue. It would be interesting to know

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how many institutions have protocols for postoperative care for patients who undergo surgery where neck hematomas are a concern and also to find out what the mandated length of PACU stay or mandatory ICU admission is. What criteria do they use for deciding patient disposition PACU stay vs ICU?

Elizabeth Cordes Behringer, M.D.

– I think we are talking about a heterogeneous group that have a few things in common: some form of neck surgery, some form of emergency afterwards that can be from edema, hematoma (venous vs. arterial), nerve injury, and they can be very difficult to handle. Some techniques on extubation allow you to determine the presence of edema but not hematoma; some patients may develop hematoma early, some later. I think awareness of the potential problems and individualization is a prudent measure to follow.

Felipe Urdaneta, M.D.

– We perform a lot of these cases and use neurophysiologic monitoring (SSEP's and MEP's). It is extremely rare that they are NOT extubated immediately following surgery since the surgeons wish to assess neurologic function. We have to time the anesthetic to allow for that (usually TIVA) we try to have the head raised for extubation. I have seen one or two wound hematomas in this group and managed them with an awake ILMA insertion and the Glidescope (asleep). I've seen more post-op neck hematomas in carotid endarterectomy and thyroid cases. Irene Osborn, M.D.

*** Follow-up:**

Where does the iLMA fall within the order of choices for airway management in these situations? What is your next best alternative? How many people would open the surgical site for ACDF or endarterectomy-suspected hematoma?

Katherine Gil, M.D.

– In my experience with these situations the patient is usually struggling to breathe as the airway is becoming obstructed or edematous. You'll hopefully find them sitting upright receiving oxygen and that's when placement of the ILMA comes to mind. This helps to facilitate assisted spontaneous ventilation and possibly

intubation. Usually patients in these conditions are reluctant to lie flat and let you have a look with a blade unless well sedated. We have attempted nasal fiberoptic intubations, which sometimes work. That said, I have also utilized a classic LMA, Air-Q or I-gel. The patient is usually hypercarbic and may tolerate one of these devices with topical anesthetic or nothing at all. I'm not comfortable opening or exploring wounds and these are measures, which can be used when the surgeons arrive. Another option we use is to "stage" the extubation in the OR using the "Bailey maneuver" and allowing the patient to emerge with the device in place. This has the dual advantage of smooth transition and the possibility of fiberoptic inspection of the glottis and re-intubation if the need arises.

Irene Osborn, M.D.

– I had a case of a Post Op CEA with an expanding neck hematoma and respiratory distress. With the neck prepped and surgeons scrubbed and standing by, I did an inhalation induction and placed a Classic LMA. The neck was opened the bleeder was found crisis was averted. We then discussed and intubated the patient overnight, which I did with a small tube through the LMA using a fiberscope. I chose a technique that I felt would cause the least amount of coughing and straining. I chose the Classic over the ILMA since it was more flexible. The ILMA was designed for normal upper airway anatomy. I have reviewed several other cases, most with poor outcomes and it amazes me that an SGA was not even attempted.

Allan J. Goldman, M.D.

– I agree with this. The ILMA and, in fact, most supraglottic airways are good for patients with relatively normal pharyngeal/laryngeal anatomy. Not patients with fungating masses or abnormal pharyngeal contours.

Charlie Watson, M.D.

*** A recent editorial from Critical Care Medicine (DOI:10.1097/CCM.0b013e31820c6c01) Newer technology is not always better, discussed a RCT on the performance of the Airtraq optical laryngoscope compared to DL in emergency intubations in the pre-hospital (Use of the Airtraq laryngoscope for emergency intubation in the prehospital setting: A**

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randomized control trial, DOI:10.1097/CCM.0b013e318206b69b). The authors reported a success rate of only 47% compared to 99% respectively and concluded two things: The Airtraq as a primary airway device cannot be recommended in the prehospital setting without significant clinical experience, and the clinical learning process of this device is much longer than previously reported. I would like to hear SAM members comments. Eric Hodgson M.D.

- While we don't have good comparative data for the various video laryngoscopes against each other, I don't think it is fair to suggest that the group of video laryngoscopes as a whole do not perform well when systematically evaluated in the difficult airway. The data on novices performance for VL compared to DL is very convincing in other studies. Michael Aziz M.D.

-I am glad this study was done. Likely out of cost, the Airtraq was used to supply the prehospital staff being tested, but it was unfairly compared. The test personnel were never truly experienced enough to intubate with the Airtraq. This device needs suctioning more than other VL products since it can be used in mouth openings smaller than others. I have used this device many times and have seen how in the hands of residents there is better success than in the hands of some ED staff members. This study highlights many problems with training. Jose Torres M.D.

-I wonder if emphasis of the study discussion and editorial should have been more directed to the training and experience of practitioners rather than the tool itself. There was a major difference in the training of DL and Airtraq and this is a key factor in the success or failure of any technique and device. Felipe Urdaneta M.D.

*** I would like to get opinions on how useful NIM (nerve integrity monitor) ETT are for thyroid and other neck procedures. These ETT's seems to be becoming more popular however I can not find much useful information on the anesthetic implications besides the inability to use neuromuscular blockers and the need to place the exposed tube electrodes on the vocal cords. The representative advises against any esophageal temperature probe although in the literature there is no mention of such a restriction. Temp probes are non conductors so it does not seem like it would short out the ET electrically. Tom Warren M.D.**

- Our surgeons like to use these ETT as well. I usually have no problem using them provided there is no muscle relaxation during the case except for the intubation. I usually just give succinylcholine for intubation and choose the correct ETT size. They tend to run "big" so for females I'd go with #7.0 or #6.5 and for males maybe a half size larger if needed. Tony Forte, M.D.

- Our surgeons always request we use a GlideScope so that everyone can see the correct ETT position. Having said this, moving the patient's head and repositioning can result in its displacement. I can't imagine why they would have advised against the temp. probe use unless there is a concern for too much bulk with the possibility of nerve injury from pressure on the esophageal wall posteriorly. Katherine Gil M.D.

- We have been using these ETT's for years. I agree with the comment regarding the size issue. You need to make sure that the cuff is below the cords with placement. Since the ETT is floppy I always use a stylet with them. I have refused a tube exchange to place this ETT in a known difficult airway with neck instability. I discussed the pros and cons with the surgeon and he actually said the tube would not be necessary for the case. It was the neuromonitoring crew that had requested that the tube be used. I only bring this up because you need open communication with your surgeons if you have or suspect any difficulties in their placement. I have had no problems, whatsoever, with placement of esophageal temperature probes and we place them routinely in conjunction with these tubes. Carin A. Hagberg, M.D.

- We have a lot of exposure to these ETT's. I agree with many of the comments preceding mine and personally rely on the Glidescope to confirm proper orientation of the electrodes after head positioning and to troubleshoot if the EP data gets erratic. We do not lubricate the ETT's as this theoretically can disperse EMG conduction. Corey Collins, D.O.

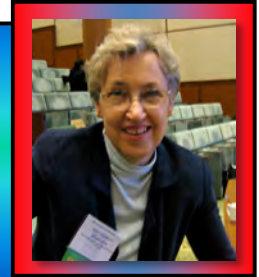
- As far as I am aware, evidence of benefit of the use of these ETT's is lacking in primary thyroid surgery. I believe that there may be some value in using them in redo thyroid surgery or when there are other complicating factors. They are also expensive and as far as I am aware, have not been established as standard of care. Marshal B. Kaplan, M.D. (SIC)

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Say, it's the Fifteenth Anniversary of the Society for Airway Management !
 If you have any historical SAM pictures that can be shown at the Saturday night reception, please send them to Irene Osborn at ireneosborn@mac.com

TIPS & Tricks *Saving the Nose!*
Katherine S.L. Gil, M.D.
Northwestern Feinberg School of Medicine
Chicago, Illinois



Nasal alar necrosis has been reported periodically in the literature for a number of years. Cephalad and lateral pressures from a nasal endotracheal tube (NETT) have been identified as causative factors. But the occurrence has also been reported without obvious ETT force.¹ This uncommon complication is highly disfiguring and has prompted multiple preventative approaches including: 1) use of suture/wire to the nasal septum or tape/towels to ensure ETT exit in a caudad direction from the nasal passage, 2) use of nasal cushions such as DuoDERM® (probably the best method for long-term intubation, as shown in Huang's pig and clinical study),² and 3) construction of a modified NETT by connecting part of an oral ETT with part of a preformed NETT.³



Because surgical access is not always optimal if the ETT is fixed in a caudad direction, a simple Reston® pad can be used to keep ETT edges away from the nares.

Fig 1. Cut a 2cm x 6cm rectangle from a 20 x 30

cm sheet of self-adhering Reston Foam®.

Fig 2. After intubation and definitive ventilation, peel off the backing. Encircle a dry area of the ETT that is intended to lie entirely within the nasal passage. If necessary, pull the ETT out a little to affix it.

Fig 3. Press the sticky side firmly to the ETT and join the most distant edges — sticky to sticky. Cut off any excess along the joining edge.

Fig 4. By using a finger and thumb, squeeze the Reston® “cuff” and ETT so that the entire foam lies within the nasal passage. (Fig. 4)

Fig 5. Foam (A) buffers the ETT surface (B). Check breath sounds and secure the ETT so that it is not pulling on the nares in any direction.

This tip is designed for the operating room, only.

References:

¹Zwillich et al. Nasal necrosis: A complication of nasotracheal intubation. *Chest*. 1973;64:376-377

²Huang et al. Preventing pressure sores of the nasal ala after nasotracheal tube intubation: from animal model to clinical application. *J Oral Maxillofac Surg*. 2009;67(3): 543-51

³Cherng CH et al. Using a modified nasotracheal tube to prevent nasal ala pressure sore during prolonged nasotracheal intubation. *J Anesth*. 2010;24(6): 959-961

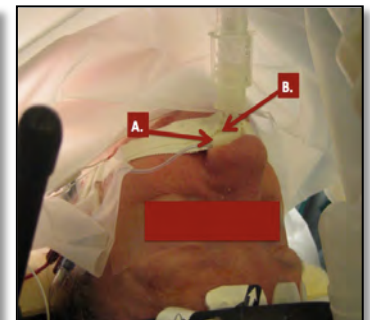
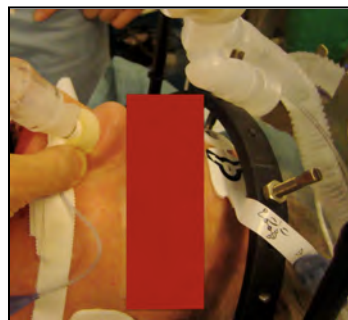


FIG 2 & 3 shown in vitro (for clarity) with a preformed NETT

FIG 4 & 5 demonstrate simple ETT use in the nose

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