The 17th Annual Spring Meeting

of the

Anesthesia History Association

April 28-30, 2011
Grapevine, Texas

Jointly sponsored by
The University of Texas Southwestern Medical Center
Dallas, Texas

Course Director
Martin Giesecke, M.D.
M.T. “Pepper” Jenkins Professor in Anesthesiology
Department of Anesthesiology and Pain Management
University of Texas Southwestern Medical Center
Dallas, TX
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Agenda

Thursday, April 28, 2011

Optional Sixth Floor Museum Tour:

Tour Lobby Entrance, Gaylord Texan

9:30 a.m.    Bus departs Gaylord Texan for Sixth Floor Museum, Tour Bus Lobby, Gaylord Texan
10:00 a.m.   Sixth Floor Museum visit
12:00 p.m.   Lunch, South Gallery, 7th Floor, Sixth Floor Museum
12:15 p.m.   Special JFK oral history presentation, South Gallery, 7th Floor, Sixth Floor Museum
2:30 p.m.    Bus departs Sixth Floor Museum for Gaylord Texan

AHA Council:

Del Rio 2, Gaylord Texan

4:00 p.m.    Anesthesia History Association Council meeting

All attendees:

Mission Plaza, Gaylord Texan

6:30 p.m.    Registration
6:30 p.m.    Welcome Reception
Agenda (continued)

Friday, April 29, 2011

Texas 6, Gaylord Texan Convention Center

7:00 a.m.   Registration, Continental breakfast
7:45 a.m.   Welcome and Introduction  
            Martin Giesecke, M.D., Course Director
            Charles W. Whitten, M.D., Professor and Chairman,  
            Department of Anesthesiology and Pain Management  
            University of Texas Southwestern Medical Center
8:00 a.m.   Free Papers
            Martin Giesecke, M.D., Moderator
8:00 a.m.   Ryan LeVasseur, M.D.  
            Ebenezer Hopkins Frost [1824-1866]: Why was WTG Morton’s first identified  
            patient invited to the Ether Demonstration of October 16, 1846?
8:30 a.m.   Bronwyn Cooper, M.D.  
            How changing burial practices in early 19th century America brought about the  
            final coming together for many participants of the October 16, 1846 ether  
            demonstration
9:00 a.m.   Ramon Martin, M.D.  
            An Appraisal of William Thomas Green Morton’s Life as a Narcissistic Personality
9:30 a.m.   Antonio Apponte-Feliciano, M.D.  
            William James Morton, M.D. [1845-1920]—the life and career of William  
            Thomas Green Morton’s son
10:00 a.m.  Break
10:30 a.m.  Free Papers  
            Mary Ellen Warner, M.D., Moderator
10:30 a.m.  Franklin Scamman, M.D.  
            A Brief History of the Central Office Anesthesia Service within the Veterans  
            Health Administration
11:00 a.m.  Mark Mandabach, M.D.  
            Ray J. Defalque, M.D. [1932-2011]
11:30 a.m.  Mary Ellen Warner, M.D. and Karen Bieterman, M.L.L.S.  
            Your New and Improved Wood Library-Museum of Anesthesiology (WLM)
12:00 p.m.  Box lunch
12:15 p.m.  Inaugural Patrick Sim Memorial Lecture  
            A.H. “Buddy” Giesecke, Jr., M.D.
1:00 p.m.   Break
Agenda (continued)

Friday, April 29, 2011 (continued)

Texas 6, Gaylord Texan Convention Center

1:30 p.m.  C. Ron Stephen Resident Essay Contest  
            William Hammonds, M.D., Moderator

1:45 p.m.  Nwamaka Pamela Nnamani, M.D., C. Ron Stephen Resident Essay Contest Finalist  
            Dantrolene: An ‘infant’ drug in pharmacotherapy; Its role in Malignant  
            Hyperthermia in Infancy explored

2:15 p.m.  Cornelius B. Groenewald, M.B., Ch.B., C. Ron Stephen Resident Essay Contest Finalist  
            The First Academic Anesthesia Department?

2:45 p.m.  Pervez Sultan, M.B., Ch.B., C. Ron Stephen Resident Essay Contest Finalist  
            Developments in Maxillofacial Orthognathic Anesthesia over the Past Four  
            Decades

3:15 p.m.  Break

3:45 p.m.  Free Papers  
            George Bause, M.D., M.P.H., Moderator

3:45 p.m.  Anthony Silipo, D.O.  
            The First Labor Epidural at Magee Womens Hospital in Pittsburgh, PA

4:15 p.m.  Matthew Louis Edwards, Jr., WLM 2009 Paul M. Wood Fellow  
            Claude Bernard’s An Introduction to the Study of Experimental Medicine and  
            Henry Beecher’s Pain Research

4:45 p.m.  George Bause, M.D., M.P.H.  
            The Calmes Before the Storm: How Selma and Katrina Assisted the Wood  
            Library-Museum in Acquiring a Rare Anesthetic Inhaler from the Mid-19th  
            Century

5:15 p.m.  C. Ron Stephen Resident Essay Contest Winner Announcement  
            William Hammonds, M.D.

5:30 p.m.  Break

Yellow Rose Reception, Gaylord Texan Resort

6:30 p.m.  Cocktail Reception, prior to

Yellow Rose Ballroom, Gaylord Texan Resort

7:00 p.m.  Dinner with Guest Speaker, Charles Tandy, M.D.  
            The Beginning of Anesthesia in Texas
Agenda (continued)

Saturday, April 30, 2011
San Antonio 1-3, Gaylord Texan Convention Center

7:00 a.m.  Registration, Continental breakfast
8:00 a.m.  Free Papers
    Anthony Kovac, M.D., Moderator
8:00 a.m.  Bradley Smith, M.D.
8:30 a.m.  Katherine Thomas, M.D.
    The Kety and Schmidt Technique: A History of their Landmark Discovery in Quantifying Cerebral Blood Flow
9:00 a.m.  Lauren Hoke, B.S.
    A history of consenting in cardiovascular surgery: Healing broken hearts
9:30 a.m.  Anthony Kovac, M.D.
    Horst Otto Stoekel: Clinician, Researcher, Administrator, Museum Founder
10:00 a.m. Break
10:30 a.m. Free Papers
    John Forestner, M.D., Moderator
10:30 a.m. Lauren Hoke, B.S.
    From working on adults to child’s play: Modification in the application of cricoids pressure
11:00 a.m. David Wilkinson, M.B., Ch.B.
    A day in the life of an anesthetist, Dr. JFW Silk, in 1909
11:30 a.m. John Forestner, M.D.
    Biographical Investigation—Dead Ends and End Runs
12:00 p.m. Closing remarks
    Martin Giesecke, M.D.
Target Audience

This course is designed for physicians, medical students and historians interested in the history of anesthesiology.

Continuing Education Information

Physicians: The University of Texas Southwestern Medical Center at Dallas is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education to physicians.

The University of Texas Southwestern Medical Center designates this live activity for a maximum of 10.75 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Learning Objectives

Upon completion of this course, participants should be able to link the educational objectives to Core Competencies and be able to:

- Assess various aspects about the life and times of William Thomas Green Morton
- Discuss the development of anesthesia services at Veterans Administration Hospitals
- Recognize the contributions of Ray Defalque, M.D. to the field of anesthesiology
- Review changes at the Wood Library-Museum of Anesthesiology
- Discuss how N₂O use led to the quantification of cerebral blood flow
- Describe the evolution of surgical consent in the field of cardiothoracic surgery
- Discuss Dr. Horst Stoessel and the development of the Horst Stoessel Museum of Anaesthesia
- Review a day in the life of a London, England anaesthetist in 1909
- Describe a biographical investigation of Frank J. Murphy, M.D., developer of the “Murphy eye”

Evaluations and Certificates

Please complete the Evaluation Form and return it to the Registration Desk. This form is an important tool for assessing the effectiveness of this activity as well as for planning future activities. Your feedback is highly valued.

Certificates

Please complete the Certificate of Credit/Attendance and CME Reporting Form. Return the yellow copy of the form to the Registration Desk so that your CME credit can be validated. Keep the white copy of the form; it is your CME certificate. If you have any questions or need a duplicate copy of your certificate, please send your request to cmeregistrations@utsouthwestern.edu.
**General Information**

**Welcome Desk**

The Registration and Welcome Desk will be open at 6:30 p.m. on Thursday, April 28, at the Mission Plaza, Gaylord Texan, immediately prior to the Welcome Reception. The desk will also be open all day Friday outside of the Texan 6 room in the Gaylord Texan Convention Center. If you have any questions, or need assistance, please contact Martin Giesecke, M.D., cell phone 214-280-9948.

**Americans with Disabilities Act**

We take pride in ensuring that our events and functions are accessible to all attendees with special needs. All meeting rooms are wheelchair accessible. Should you require special arrangements, please contact the Gaylord Texan Resort staff.

**Meals**

The Welcome Reception, continental breakfast, refreshment breaks, and lunch and dinner (on Friday only) are provided as part of the program. If you have special dietary needs, please notify Martin Giesecke, M.D., cell phone 214-280-9948, as soon as possible so that you may be accommodated.

**Mobile phones/pagers**

As a courtesy to the speakers and your fellow participants, please turn off all mobile phones/pagers during the program. Vibrate only and silent mode settings are acceptable.

**Photography policy**

Any person attending may be photographed or videotaped, and by your attendance, you give permission to use your image in possible future marketing publications including print, online and video.

**Presentations**

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the sponsor, supporter, or publisher. Although great care has been taken in compiling and checking the information given in this publication, the authors and The University of Texas Southwestern Medical Center and its servants or agents shall not be responsible or in any way liable for the continued currency of the information, or for any errors, omission, or inaccuracies in this publication, whether arising from negligence or instances.

**Syllabus/Slides**

Please note that the slide presentations may differ from the abstracts published in this syllabus for the following reason(s):

- Changes were made to the presentations after the conference materials were published
Faculty

Course Director and Moderator

Martin Giesecke, M.D.
M.T. “Pepper” Jenkins Professor and Vice Chair
Department of Anesthesiology and Pain Management
UT Southwestern Medical Center
5323 Harry Hines Blvd
Dallas, TX  75390

martin.giesecke@utsouthwestern.edu

Guest speakers

A.H. “Buddy” Giesecke, Jr., M.D.
Professor Emeritus
Department of Anesthesiology and Pain Management
UT Southwestern Medical Center
5323 Harry Hines Blvd
Dallas, TX  75390

Charles Tandy, M.D.
Anesthesiologist
Dallas, TX

Moderators

Mary Ellen Warner, M.D., Associate Professor of Anesthesiology, Mayo Clinic, Rochester, MN

William Hammonds, M.D., Professor of Anesthesiology, Medical College of Georgia, Augusta, GA

George Bause, M.D., M.P.H., Clinical Associate Professor, Case Western Reserve University School of Medicine, Cleveland, OH and Honorary Curator, Wood Library-Museum of Anesthesiology, Park Ridge, IL

Anthony Kovac, M.D., Professor of Anesthesiology, University of Kansas Medical Center, Kansas City, MO

John Forestner, M.D., Ft. Worth, TX
Thursday, April 28, 2011

Optional Sixth Floor Museum Tour:

Tour Lobby Entrance, Gaylord Texan

9:30 a.m.   Bus departs Gaylord Texan for Sixth Floor Museum
10:00 a.m.  Sixth Floor Museum visit
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2:30 p.m.   Bus departs Sixth Floor Museum for Gaylord Texan

AHA Council:

Del Rio 2, Gaylord Texan

4:00 p.m.   Anesthesia History Association Council meeting

ALL REGISTRANTS:

Mission Plaza, Gaylord Texan

6:30 p.m.   AHA Spring 2011 Meeting Registration
6:30 p.m.   AHA Welcome Reception
NOTES
Friday, April 29, 2011 (7:00 a.m. to 10:00 a.m.)

Texas 6, Gaylord Texan Convention Center

7:00 a.m.  Registration, Continental breakfast
7:45 a.m.  Welcome and Introduction  
    Martin Giesecke, M.D., Course Director  
    Charles W. Whitten, M.D., Professor and Chairman,  
    Department of Anesthesiology and Pain Management  
    University of Texas Southwestern Medical Center
8:00 a.m.  Free Papers  
    Martin Giesecke, M.D., Moderator
8:00 a.m.  Ryan LeVasseur, M.D.  
    Ebenezer Hopkins Frost [1824-1866]: Why was WTG Morton’s first  
    identified patient invited to the Ether Demonstration of October 16,  
    1846?
8:30 a.m.  Bronwyn Cooper, M.D.  
    How changing burial practices in early 19th century America brought  
    about the final coming together for many participants of the October  
    16, 1846 ether demonstration
9:00 a.m.  Ramon Martin, M.D.  
    An Appraisal of William Thomas Green Morton’s Life as a Narcissistic  
    Personality
9:30 a.m.  Antonio Apponte-Feliciano, M.D.  
    William James Morton, M.D. [1845-1920]—the life and career of William  
    Thomas Green Morton’s son
10:00 a.m. Break
Ebenezer Hopkins Frost [1824 – 1866]:

Why was WTG Morton’s first identified patient invited to the Ether Demonstration of October 16, 1846?

Ryan LeVasseur, M.D. and Sukumar P. Desai, M.D.
Department of Anesthesiology, Perioperative and Pain Medicine
Brigham and Women’s Hospital
75 Francis Street, Boston, MA 02115

Background – Not much is known about the identity of patients anesthetized by WTG Morton prior to the first successful public demonstration of ether anesthesia on October 16, 1846. We explore and provide new information on the life of one individual who has clearly been identified, and speculate on the reasons why he was invited to attend the famous demonstration.

Methods – Published articles in medical journals, narrative books, Morton’s biography, public records, and other sources in the public domain were examined to obtain information about Frost and Morton. Behaviors exhibited by Morton both before, as well as after the demonstration, are the basis of our conclusions about Morton’s likely motives in inviting Frost to be present at the demonstration.

Results – We were able to get detailed information about Ebenezer Hopkins Frost’s date and place of birth. In addition, we have procured details about his parents and family. His profession has variously been stated as that of music teacher, a sawyer, or a baker. His obituary suggests that he taught music. Morton’s life was full of paradoxes, but it is especially difficult to understand why such a talented man would resort to so many untoward actions. Details of this side of his personality have been covered extensively in several books.

Conclusions – Morton’s unsavory exploits, and the fact that Horace Wells had been ridiculed for an unsuccessful attempt at demonstrating the anesthetic effects of nitrous oxide, lead us to speculate a less than noble reason for the invitation extended by Morton to Frost to be present at the demonstration.
NOTES
How changing burial practices in early 19th century America brought about the final coming together for many participants of the October 16, 1846 ether demonstration

Bronwyn Cooper, M.D.#, and Sukumar P. Desai, M.D.§
#Department of Anesthesiology, UMass Memorial Health Care [Worcester, MA], and
§Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women’s Hospital, Harvard Medical School [Boston, MA]

Background: The few burial options in early 19th century America included church yards, small municipal plots, or vacant lots on the outskirts of towns and cities. Space was limited, especially as the population in cities began to grow. Foul odors, uncovering of soil by animals, and public health hazards kept mourning loved ones from ever wishing to revisit burial sites. At the end of the first quarter of the 19th century, Jacob Bigelow, a physician and horticulturist, entered the scene like a breath of fresh air. We examine how his pioneering efforts led to the creation of America's first landscaped cemetery in Cambridge, Massachusetts, a place that soon became a must-visit destination, and also the final resting place of many of the participants of the ether demonstration of October 16, 1846.

Methods: We conducted a biographical study of the lives of Jacob Bigelow as well as participants of the ether demonstration. In addition, we examined records related to the establishment of the Massachusetts Horticultural Society, the first in America, and also those of Mount Auburn Cemetery. We studied burial practices in Europe and America to identify obstacles that prevented a steady improvement in practices towards those in modern society.

Results: Ignorance, opposition from established religious authorities, and an unwillingness of municipal authorities to devote resources allowed the status quo to persist for centuries. Persistent action undertaken by Jacob Bigelow and founders of Mount Auburn Cemetery forced society to re-examine methods to care for the dead, as well as provide an ambience where loved ones may reminisce and meditate about the departed. Mount Auburn Cemetery’s example was soon followed by the design and construction of landscaped cemeteries throughout America.

Conclusions: A variety of hurdles were overcome by the perseverance of one man, Jacob Bigelow, to lay the foundations of modern burial practices in America. Mount Auburn Cemetery became the preferred site of burial for prominent Bostonians, and is the final resting place for many of the participants of the ether demonstration. Although some of them had major differences amongst themselves while alive, in death, they rest peacefully forever at Mount Auburn Cemetery.

References:
2. Linden, B. Silent City on a Hill.2007. Amherst, MA. University of Massachusetts Press.
NOTES
An Appraisal of William Thomas Green Morton’s Life as a Narcissistic Personality

Ramon F Martin, M.D., Ajay D Wassan, M.D. and Sukumar P Desai, M.D.
Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

Problem: The troubled life and death of William Thomas Green Morton has been described in several texts. His first public demonstration of ether anesthesia was the highpoint of a life that was less than successful in many of his endeavors. Close examination of this life reveals a pattern of behavior which progresses from narcissistic traits to narcissistic personality pathology. This retrospective psychiatric analysis of Morton’s life was undertaken to theorize as to whether after having successfully demonstrated ether anesthesia, why did he not continue to develop anesthesia as a clinical specialty?

Sources Used: Biographies about Morton were used to explore details of his life.

Methodological Approach: The Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) classification of Narcissistic Personality Disorder, as well as clinical reviews and recent articles about whether narcissistic personality is a trait or a disorder were used to frame Morton’s life. One of the investigators (AW) is a psychiatrist and assisted in the analysis. Narcissistic personality disorder is characterized by: 1) an inflated evaluation of oneself; 2) interpersonal exploitation; 3) expansive imagination; 4) displaying a supercilious imperturbability = nonchalance; and, 5) defective social conscience = does not value personal integrity. There is a continuum from narcissistic traits, which can be adaptive, to maladaptive narcissistic pathology.

Because there is little information about Morton’s childhood, our investigation divided Morton’s life into four phases: 1) adolescence to early adulthood; 2) adulthood, during which he settled in Massachusetts and took up Dentistry; 3) experimenting with ether and his clinical use of the vapor; and, 4) his attempts to patent and license the use of ether and to seek official accolades and remuneration for his clinical demonstration. Each phase will be framed by the characteristics of narcissistic personality traits/disorder to make sense of a life whose historical clinical achievement did not provide the fulfillment that he desired.

Conclusion: An examination of William Thomas Green Morton’s life leads us to suggest that he suffered from maladaptive narcissistic traits at the least and possibly from Narcissistic Personality Disorder.

References:
NOTES
William James Morton M.D. [1845 – 1920] – the life and career of
William Thomas Green Morton’s son

*Antonio Aponte-Feliciano, M.D., +Sukumar P. Desai, M.D., *Manisha Desai, M.D.
*Department of Anesthesiology, UMass Memorial Health Care, Worcester, Massachusetts
+Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women’s Hospital
Harvard Medical School, Boston, Massachusetts

Background: William James Morton, son of William Thomas Green and Elizabeth (Whitman) Morton, was born on July 3, 1845 in Boston, Massachusetts. We studied his career to elucidate his contributions to society, especially in the medical field. His paternal grandfather was uneducated, but made sure his father had opportunities for education. In turn, William James Morton received the best education available. Like his father, he was a pioneer and a man of action.

Methodology: Material in the public domain was examined for the information presented here. These include biographical works, college catalogues, as well as scientific articles and books published by Morton.

Results: Morton attended Boston Latin School, the first and oldest public school in the United States. He graduated from Harvard College, the oldest in the US, in 1867. Soon thereafter, he attended and graduated from Harvard Medical School in 1872, after which he completed training in neurology at Massachusetts General Hospital. As a medical student, he received the Boylston prize for his thesis on anaesthetics, and he remained a strong supporter of his father’s claims as the discoverer of anesthesia. He spent two years in Vienna for post-graduate studies, and also trained under Jean-Martin Charcot at the Salpêtrière Hospital, Paris. After returning to the United States, he conducted pioneering work in the application of electrical energy in the diagnosis and treatment of a variety of diseases. His contributions include designing a machine to deliver therapeutic electric current using condensers. This charge was called ‘Morton Current.’ He was probably the first to make a hardcopy image from an X-ray machine in the U.S. He was a pioneer in the field of Electro-Therapeutics and Cataphoresis, using his techniques in the treatment of diseases ranging from neurologic conditions, rheumatoid arthritis, urinary incontinence, sexual impotence, and uterine fibroids. He published scores of scientific articles, and was editor of several journals. He was a member of many professional associations both in the U.S. and in Europe. He was president of the New York Neurological Society, and also the Harvard Medical Society of New York City.

Conclusions: William James Morton remained a strong supporter of his father’s contributions to the discovery of ether anesthesia. Unlike his father, he completed medical school and residency training, and was not successful in obtaining patents. Like his father, he was constantly at the forefront of new discoveries in the field of medicine. He made many contributions to the practice of medicine, especially the use of electric current in the treatment of disease. Despite his most prolific career, few of his contributions have any current application, whereas his father’s single contribution remains, without doubt, one of the greatest discoveries in medicine.
Friday, April 29, 2011 (10:30 a.m. to 12:00 p.m.)

Texas 6, Gaylord Texan Convention Center

10:30 a.m. Free Papers

Mary Ellen Warner, M.D., Moderator

10:30 a.m. Franklin Scamman, M.D.

A Brief History of the Central Office Anesthesia Service within the Veterans Health Administration

11:00 a.m. Mark Mandabach, M.D.

Ray J. Defalque, M.D. [1932-2011]

11:30 a.m. Mary Ellen Warner, M.D. and Karen Bieterman, M.L.L.S.

Your New and Improved Wood Library-Museum of Anesthesiology (WLM)
A Brief History of the Central Office Anesthesia Service within the Veterans Health Administration

Franklin Scamman, MD, University of Iowa, Iowa City, Iowa

The Veterans Health Administration (VHA), one of the three branches of the Department of Veterans Affairs, has about 123 hospitals that have surgical services intensive enough to require anesthesia services. Of these, about thirty-two have no anesthesiologist on staff—the anesthesia services are supplied by nurse anesthetists. In 1990, thirty-two of the hospitals had stand-alone anesthesia services and the remainder were sections of the surgical service.

Prior to 1989, the Association of VA Anesthesiologists (AVAA), with McIver Edwards, M.D., as president, had petitioned the VA Central Office (VACO) in Washington, DC to establish an anesthesia presence there. Similar petitions came from the Association of VA Nurse Anesthetists (AVANA) in 1991 with Richard Briscoe, CRNA, as president. Because of budgetary constraints, the petitions were denied. However, invitations were extended for an anesthesiologist and a nurse anesthetist to join the Surgical Field Advisory Committee (FAC), which the AVAA accepted. In 1994, The VA Inspector General issued a report noting that VACO had no oversight of delivery of anesthesia services and that there was no agency-wide policy for quality assessment and improvement. The draft report had circulated two years prior and VACO, acting on the recommendations of the draft report, initiated the formation of a Central Office Anesthesia Service. David Law, M.D., then Director for Hospital Based Services, proposed that the Service have the following structure: an M.D. director at 49% FTEE; a CRNA deputy director at 37% FTEE; a program assistant and a secretary at 1.0 FTEE each. There was to be a Field Advisory Committee consisting of four M.D. chiefs of anesthesiology services and four CRNAs, the FAC meeting yearly at the time of the ASA annual meeting. This proposal percolated up through VACO and was approved by the Chief Medical Director in early 1994. VACO then started a search for the Deputy Director and Loretta Wasse, CRNA, from Seattle VAMC was appointed in July. A similar search for the Director resulted in the appointment of Franklin Scamman, M.D., in August, 1994. Each was to serve a four-year term.

With the two top positions now filled, Wasse and Scamman undertook filling the positions on the FAC. They decided to select individuals from each of the four major geographical areas of VHA and to stagger the terms from two to four years so that there would be continuation of expertise. The first FAC meeting was held in Arlington, VA, in May 1995, with topics of a handbook for new chiefs of service, conscious sedation by non-anesthesia providers, DNR orders in the operating room and revision of the SF-517, the Federal anesthesia record. The second FAC meeting was held in Atlanta in conjunction with the 1995 Annual Meeting of the ASA. Topics of discussion included writing the policy and procedure document for the conduct of anesthesia within VHA and pay issues. The third FAC meeting was held in New Orleans in 1996 with emphasis on electronic communication, making the electronic surgical package more anesthesia friendly and pain control. The 1997 meeting in San Diego concentrated on pain control and blanket purchase agreements. The 1998 meeting in Orlando centered on pain control and electronic record keepers.

In 1998, Scamman’s term of appointment expired and the Director’s position sat empty for almost two years. Eventually, Michael Bishop, M.D., Seattle VA was appointed director. Currently, John Sum-Ping at the Dallas VA is Director.
Ray J. Defalque, M.D., 1932-2011

Mark Mandabach, M.D., and A.J. Wright, M.L.S.
Birmingham, Alabama

We would like to note the passing of Dr. Ray Defalque on March 11, 2011 after a brief illness. Our friend and colleague was born in 1932 in Belgium. After receiving his undergraduate degree in 1952, he pursued a medical degree at the University of Louvain and graduated in 1957. He immediately came to the U.S. and completed an internship at hospitals in New York City in 1957-58 and an OB-GYN fellowship in 1958-59 at the University of Wisconsin Hospitals. His anesthesia residency followed at the University of Iowa and by 1961 he was back in Belgium as Chief of the Anesthesia Section at the Naval Hospital in Ostend. He returned to the United States in 1965 as Chief of the Anesthesia Section at the Indianapolis VA, a position he held until 1988. Dr. Defalque was named Professor in the Anesthesia Department at Indiana University School of Medicine in 1975.

In 1988 he joined our department and worked at the VA and UAB. During his long career he specialized in the practice and teaching of regional anesthesia and orthopedic perioperative care and published a number of articles in that area. In 1989 and 1990 he was voted Teacher of the Year in our department. Ray retired in 1999 and was subsequently awarded Professor Emeritus status by UAB. Our department’s Defalque Award was established in his honor. As the plaque notes, “The Ray J. Defalque Award is awarded annually to an anesthesiology resident. This award was established in 1999 and is given in honor of Dr. Ray Defalque who, before his retirement in 1999, was a steadfast advocate of resident education and was widely known for his skill in the administration of regional anesthesia.”

For several years after his retirement he spent four to six weeks each year in Vietnam teaching regional anesthesia at an orthopedic hospital in Ho Chi Minh City under the auspices of Health Volunteers Overseas. Never tiring and full of energy and enthusiasm for anesthesiology, he worked locally in Alabama as well in various locum tenens opportunities. Well before his retirement, Dr. Defalque developed a deep interest in the history of his specialty and began to publish what became a long series of articles in that area. He was especially interested in the history of chloroform. He was active in the Anesthesia History Association and a member of our Department’s History Section.

Under his sometimes gruff exterior, we found Ray to be a warm and funny man who knew much about many things and was always ready to share that knowledge. Ray has been a friend and mentor, always willing to listen and help. He translated numerous articles for us in a variety of languages, including German, French, Italian, Spanish, Portuguese and Latin. A major example was the first translation into English of Johannes Quistorp’s Die Anaesthesie, a German medical school dissertation written in Latin in 1718. Ray was a scholar in the classical sense and soft spoken and kind. We will miss him very much. He is survived by his wife Druscilla, sons James and Jeff, and two grandchildren.
Dr. Defalque examines a poster at the department’s 60th anniversary celebration, June 2008

NOTES
Your New and Improved Wood Library-Museum of Anesthesiology (WLM)

Karen Bieterman, M.L.I.S, WLM Manager-Librarian
Mary Ellen Warner, M.D., WLM President

Your Wood-Library Museum of Anesthesiology (WLM) has been a flurry of activity this past year. What was once our showpiece gallery has been completely disassembled to allow for space needs at the American Society of Anesthesiologists Head Quarters Building (ASA HQ) for increasing ASA personnel. ASA has allowed us to showcase some of our existing treasures throughout current ASA HQ space with this move. Gracing the building’s room and hallways, one will find twelve beautiful displays of our invaluable gems detailing the history of our great specialty of anesthesiology. Our new gallery space is bright and appealing, and we are looking forward to reoccupying this space under our Honorary Curator, George Bause, M.D.’s very capable guidance by May 31, 2011.

Fortuitously, this downsizing of our museum matches well with the WLM’s efforts to make its collections available to a worldwide audience. The WLM has embarked on a major digitization project of our museum, library and other holdings. Over a relatively short time period, we will digitize our museum pieces, rare book collections, living history videos and our archival collections. Our goal is to make our collections more accessible to anesthesiologists, the medical community in general, historians and the public.

A very important part of our digitization efforts is our website redesign. We launched this website on March 3, 2011. This website is the backbone that will allow us to accommodate our digitization project and create a virtual museum through integration of our collections in their digitized format. The first stage of this website is operational and includes digitized artifacts in three dimensions, turn-the-page technology of our rare books, audio clips from our curator and video streams from our Living History Collection. The second phase will build on the technology with unique artwork and collages of information to create that individual virtual museum experience.

During this presentation, we will highlight our digitization efforts including the gallery vacating, image capture of our artifacts, rare books with turn-the-page demonstration, bio-files, Sydney Plus and its link to our library collection, and demonstration of our new website with its unique artwork. Our website is becoming a treasure trove of historical resources and we will continue to enhance this in the upcoming months.
Friday, April 29, 2011 (12:00 p.m. to 1:00 p.m.)

Texas 6, Gaylord Texan Convention Center

12:00 p.m.       Box lunch
12:15 p.m.       Inaugural Patrick Sim Memorial Lecture
                 A.H. “Buddy” Giesecke, Jr., M.D.
1:00 p.m.        Break
Friday, April 29, 2011 (1:30 p.m. to 3:15 p.m)

Texas 6, Gaylord Texan Convention Center

1:30 p.m.  C. Ron Stephen Resident Essay Contest
William Hammonds, M.D., Moderator

1:45 p.m.  Nwamaka Pamela Nnamani, M.D., C. Ron Stephen Resident Essay Contest Finalist
Dantrolene: An ‘infant’ drug in pharmacotherapy; Its role in Malignant Hyperthermia in Infancy explored

2:15 p.m.  Cornelius B. Groenewald, M.B., Ch.B., C. Ron Stephen Resident Essay Contest Finalist
The First Academic Anesthesia Department?

2:45 p.m.  Pervez Sultan, M.B., Ch.B., C. Ron Stephen Resident Essay Contest Finalist
Developments in Maxillofacial Orthognathic Anesthesia over the Past Four Decades

3:15 p.m.  Break
1:45 p.m.  Nwamaka Pamela Nnamani, M.D., C. Ron Stephen Resident Essay Contest Finalist

*Dantrolene: An ‘infant’ drug in pharmacotherapy; Its role in Malignant Hyperthermia in Infancy explored*

NOTES
2:15 p.m.  Cornelius B. Groenewald, M.B., Ch.B., C. Ron Stephen Resident Essay Contest Finalist

*The First Academic Anesthesia Department?*

**NOTES**
Developments in Maxillofacial Orthognathic Anesthesia over the Past Four Decades
Friday, April 29, 2011 (3:45 p.m. to 5:30 p.m)

Texas 6, Gaylord Texan Convention Center

3:45 p.m. Free Papers
George Bause, M.D., M.P.H., Moderator

3:45 p.m. Anthony Silipo, D.O.
The First Labor Epidural at Magee Womens Hospital in Pittsburgh, PA

4:15 p.m. Matthew Louis Edwards, Jr., WLM 2009 Paul M. Wood Fellow
Claude Bernard’s An Introduction to the Study of Experimental Medicine and
Henry Beecher’s Pain Research

4:45 p.m. George Bause, M.D., M.P.H.
The Calmes Before the Storm: How Selma and Katrina Assisted the Wood
Library-Museum in Acquiring a Rare Anesthetic Inhaler from the Mid-19th
Century

5:15 p.m. C. Ron Stephen Resident Essay Contest Winner Announcement
William Hammonds, M.D.

5:30 p.m. Break
The First Labor Epidural at Magee Womens Hospital in Pittsburgh, PA.

Anthony Silipo, D.O.

The 1970’s brought many new ideas ranging from music, fashion, religion and oddly enough, anesthetic care of the laboring parturient. At Magee Womens Hospital in 1972, a young woman made history when she utilized that institution’s first labor epidural. Although this was not the first labor epidural in the country, it was the first epidural at this major women’s hospital in Pittsburgh, Pennsylvania. This epidural was performed by an anesthesiologist who just happened to be the husband of the patient. The remainder of the patient’s labor proceeded in comfort and her delivery was uncomplicated, yielding a beautiful baby girl.

The actual epidural was performed by staff anesthesiologist Dr. Ezzat Abouleish. According to Dr. Abouleish, the initial doubt, skepticism and fear surrounding this technique was mitigated by performing the first epidural on his own wife. This fact had a major impact on the growth of this modality within the institution. It garnered respect from the obstetricians, nurses and Dr. Abouleish’s own anesthesia colleagues. From that point on, increasing numbers of women received epidurals for labor, paving the way for us to reach the current rate of 90% placement of labor epidurals at Magee Women’s Hospital. Dr. Abouleish went on to teach the technique not only to residents, but also to his peers. He pioneered this technique at this institution, and Dr. Ezzat Abouleish eventually became one of the first to introduce the CSE into regular practice. Dr. Abouleish, originally born in Egypt, came to the United States in 1968. After a two year tenure at Case Western University Hospital, he joined the staff of Magee Womens Hospital in Pittsburgh. He served 12 years in Pittsburgh, eventually reaching full Professor status. His list of accomplishments and publications is quite vast, including winning the Gerti Marx award in 1999. He authored several books which included Pain Control in Obstetrics as well as a book entitled Childbirth...A Joy Not A Suffering. His CV is quite impressive, and cannot be fully summarized for this abstract, but will be explored during the presentation.

Prior to the common use of epidurals at Magee, the most frequent anesthesia methods included: obstetrician administered caudals, sub-arachnoid blocks and IV sedation. During our interview, Dr. Abouleish described the “double catheter technique” where a caudal and epidural catheter were placed at the same time. The catheters were then activated according to the stage of labor, with the caudal catheter being used for the latter stage and delivery. This presentation will highlight the events and the accomplishment as well the physician who brought this technique to Pittsburgh. The landscape of obstetrical anesthesia at Magee Womens Hospital would not be the same without this landmark event.

Reference:
Noted experimentalist Claude Bernard (1813-1878) is rarely discussed in relation to physician Dr. Henry K. Beecher (1904-1976), despite their shared interests in anesthesia and experimental physiology. A comparative analysis of Bernard and Beecher’s work and writings, however, reveals that both men desired disciplinary standing for their study and were avid proponents of a medical science based on experimental physiology. And yet, perhaps most profoundly, both men were also keenly aware of the limits of the experimental approach to medicine. Their shared understanding of the “unique character” of higher organisms was central to their belief in both the merit and limits of a rigid experimental approach. Moreover, this understanding contributed to their legacy on the study of behavior.

Both Bernard and Beecher felt that anesthesia was a complex phenomenon. Bernard conducted a number of basic research studies in anesthesia as early as 1855. Where Bernard argued that the neuromuscular junction is the site of action of curare (Dal Santo 1993: 699), Beecher would argue that the reaction component is the site of action of drugs altering the subjective component of pain; this finding led Beecher to reject psychophysics, or the notion of a perfect relationship between the perceived intensity of a stimulus and its physical intensity. Thus Beecher’s belief in the importance of psychology in relation to both anesthesia and physiology was central to his research program and challenged the reigning psychophysics of his time. Bernard’s work also recognized the “many and various interactions and interconnections between the psychological and the physiological” (Normandin 2007: 501). Despite this view of the organism, or perhaps because of it, Beecher would argue that “experimental reproducibility of clinical states is a first requisite” in medical science. This would later prove fundamental to Beecher’s work in the measurement of controlling factors in pain by having the patient serve as his own control (Meldrum 1999; Beecher 1956: 164-166).

Both Bernard and Beecher felt that laws and fundamental concepts were attainable with prediction and that behavioral science must move beyond description and towards measurement, although they differed substantially on how such measurement should be carried out. Bernard outright rejected the quantitative method, arguing that the physician by necessity must “understand individualities as special cases included in a general law” (Normandin 2007: 518). As such, Beecher’s appraisal of the quantitative method stood in opposition to Bernard’s view, but did not actually violate the idea of the uniqueness of the organism, or the reaction component as unique across individuals because patients served as their own control. And yet while Beecher took a markedly different approach than Bernard (i.e., quantitative), both men unanimously appraised the duality of the laboratory and clinic—each with its own fundamental limitations—in order to seek basic concepts in medical science vis-à-vis experiment. Thus, Beecher’s work in the quantitative approach to the study of pain and behavior addressed the limitations of Bernard’s earlier work in experimental physiology by equipping medicine with tools for understanding the behavior of biological organisms without violating the central tenet of the uniqueness of higher organisms.

Reference List:
The Calmes Before the Storm:

How Selma and Katrina Assisted the Wood Library-Museum in Acquiring a Rare Anesthetic Inhaler from the Mid-19th-Century

George S. Bause, M.D., M.P.H.
Honorary Curator, ASA’s Wood Library-Museum, Park Ridge, IL
Clinical Associate Professor, Case Western Reserve University, Cleveland, OH

A co-founder of the Anesthesia History Association, Selma H. Calmes, M.D. published in her March of 1985 issue of the AHA Newsletter a brief article titled “What is it?” Beneath a hand-drawn figure of an anesthetic inhaler was the following description: “It was found in a New Jersey antique shop. It is silver over brass or copper and is elaborately engraved. A sponge was inside the ball section below the funnel. Dimensions are about 2 – 5/8” wide, about 4 – ¼” long. Send responses to The Editor....”  

After reading about the inhaler, I was intrigued to stumble across it again, this time as a photographic illustration in Elisabeth Bennion’s 1986 book Antique Dental Instruments. According to the author, the item was an “Engraved silver-plated ether inhaler with hinged nose-clip, c.1860, used by a dentist in Jersey City, N.J. Overall length 10cm.” 

In 1998 I came across a second photograph of this inhaler. This time it was featured in a museum brochure published from Baltimore as 32 Terrific Teeth by The Dr. Samuel D. Harris National Museum of Dentistry. The NMD characterized the item as an “Engraved, silver-plated nasal inhaler for administering ether anesthesia, with a hinged nose clip, circa 1860.”

Soon after Hurricane Katrina struck New Orleans, the former director of the NMD introduced me to the inhaler’s owner, a gentleman whose home had been damaged by the storm. I negotiated a generous price for the inhaler and agreed to honor the rest of his 3-year commitment to display the item at the NMD.

On finally recovering the inhaler for the WLM, I was astonished to discover how wrong all prior descriptions had been, how spectacular this acquisition really was, and how it “forsook Europe for New Jersey, and then Maryland, before [being hand-carried to]... the WLM.”

References:
Saturday, April 30, 2011 (7:00 a.m. to 10:00 a.m.)

San Antonio 1-3, Gaylord Texan Convention Center

7:00 a.m. Registration, Continental breakfast
8:00 a.m. Free Papers
  Anthony Kovac, M.D., Moderator
8:00 a.m. Bradley Smith, M.D.
8:30 a.m. Katherine Thomas, M.D.
  The Kety and Schmidt Technique: A History of their Landmark Discovery in Quantifying Cerebral Blood Flow
9:00 a.m. Lauren Hoke, B.S.
  A history of consenting in cardiovascular surgery: Healing broken hearts
9:30 a.m. Anthony Kovac, M.D.
  Horst Otto Stoekel: Clinician, Researcher, Administrator, Museum Founder
10:00 a.m. Break
Robert F. Hustead, M.D. (1928 - 2008):
Visionary, Enthusiast, and Leader in Anesthesiology

Bradley E. Smith, M.D.
Vanderbilt University
Nashville, Tennessee

Bob Hustead was born in Pueblo, Colorado, in 1928. He graduated from Yale in 1950 and Yale Medical School in 1954. In 1952 David M. Little, (then at Yale), appointed Bob to independently cover Yale's OB anesthesia night call, thus starting Bob's love of OB anesthesia. It was at this very early stage that Bob began to hand fashion his legendary “Hustead epidural needle.”

After Anesthesiology residency at Yale and Hartford, Bob was assigned by the Army to the prestigious Chemical and Biological Center in Aberdeen, Maryland from 1957 to 1959, where he worked on treatment of chemical warfare casualties. In free periods, he began attending OB/Gyn “Rounds” at nearby Johns Hopkins. There, he met and collaborated with numerous legendary figures in obstetrics and neonatology, and was invited to teach and provide OB anesthesia on weekends. After discharge from the Army, Bob stayed on the Hopkins faculty. He became one of the earliest members of the Maternal Welfare Committee of the ASA.

For nearly two decades Bob remained an official "Consultant Anesthesiologist to the Office of the Surgeon General of the United States." Throughout his career he patented numerous medical devices and donated the majority of his patents to the public domain.

In 1961, Bob and family moved to Kansas University at Kansas City where he headed up OB anesthesia. During these years, he met and collaborated extensively with both Elwyn S. Brown and James O. Elam, who were legendary clinical investigators and inventors. In 1968 and 1969, Bob and five others organized and founded the Society for Obstetric Anesthesia and Perinatology (SOAP) and Bob became its first president.

Due largely to the financial stress of educating nine children, in 1973 Bob moved to Wichita, Kansas, to a private practice. Always the innovator, Bob invented new techniques for ophthalmologic anesthesia, wrote, published and taught. His 1993 book, OPHTHALMIC ANESTHESIA (with James Gills), has been called a “classic.” In 1986, Bob was instrumental in helping to found the Ophthalmic Anesthesia Society and remained a prominent leader of OAS until his last illness.

In 1978, Bob and wife Joy (they ultimately were married 36 years) survived a terrible private airplane crash which required prolonged intensive care and rehabilitation for them both. Characteristically, they vigorously returned to ophthalmic anesthesia until retirement. All nine of their children earned advanced degrees and certifications and produced sixteen grandchildren.

Bob was a person of integrity, inventiveness, and compassion. He possessed a rare mix of extreme native intellect driven by enthusiasm and seasoned by continuing contacts with a long list of highly qualified mentors. His contributions to medicine in general and anesthesiology in particular have earned him a permanent place in our "Hall of Fame."
Mankind has long been fascinated by the mysteries of the human brain. Countless philosophers, men of science, and others have set out to investigate its secrets, with each discovery generating even more new questions. Understanding the brain's anatomy and physiology, and the nature of consciousness, has been our perennial passion.

Evidence from the early Stone Age of successful skull trepanation and from ancient Sumerian writing on the brain reveals the study of the brain is almost as old as mankind itself. (1) Later, in 500 B.C., Greek physicians performed dissections of the brain, and based their hypotheses about cerebral function on the anatomy of the cerebral vasculature. (2) In the 16th century, the first accurate illustrations of cerebral anatomy were published. However, due to the difficulty involved in studying the cerebral circulation in live subjects, little was known about regulation of cerebral blood flow, much less how to quantify it. At the beginning of the 20th century a prevailing question emerged: was cerebral blood flow dependant on extrinsic factors alone (e.g., cardiac output) or did the brain regulate blood flow intrinsically (e.g., by dilating and constricting its own vasculature)? (3) After decades of debate on this question, two physicians from the University of Pennsylvania, Seymore Kety and Carl Schmidt, developed an original technique for measuring blood flow and metabolism in the brain, an accomplishment never before achieved in human subjects.

Kety was aware of the Fick principle, and its successful application in determining cardiac output. (4) The Fick principle demonstrates that by measuring the amount of oxygen in blood going to and from the lungs, one can determine the rate of oxygen metabolism of the lungs as well as blood flow to the organ. Kety reasoned that they could apply the Fick principle to quantify cerebral blood flow. (3, 4) They understood the brain would require different amounts of oxygen during different states of metabolic activity. Therefore, they reasoned that oxygen could not be used to reliably calculate brain perfusion. (4) However, an inert gas such as nitrous oxide (N2O) would accumulate in the brain at a constant rate dependant on cerebral blood flow and independent of cerebral oxygen metabolism. (5, 6) With this ingenious technique they could now determine cerebral blood flow in unanesthetized humans for the first time.

Using their innovative nitrous oxide approach, Kety and Schmidt took their investigation a step further, calculating oxygen metabolism of the brain in various states. (5, 6) Their work revealed that active and passive hyperventilation has predictable effects on cerebral blood flow and oxygen consumption. (7) Moreover, inhalation of carbon dioxide and oxygen were also shown to have predictable effects on CBF. (8) Perhaps most momentous of all, they established the human brain’s ability to auto-regulate its own blood flow using intrinsic mechanisms. (5-8)

The work of Kety and Schmidt can be considered groundbreaking and has had lasting implications for cerebral physiology, neuroscience, and the practice of modern anesthesia. Not only did their research revolutionize thinking on cerebral circulation at the time, they were also responsible for the creation of the modern field of brain imaging. (3, 9) Thus, Kety and Schmidt have an established role in history, further advancing mankind’s understanding and fascination with the human brain.

References


NOTES
A history of consenting in cardiovascular surgery: Healing broken hearts

Yvon F. Bryan, M.D., Joseph May, B.S., Lauren Hoke, B.S.
Department of Anesthesiology, Wake Forest University School of Medicine, Winston-Salem, NC

The history of cardiovascular (CV) surgery is one of innovation and risk. Risks involved patient’s complex lesions, high likelihood of death from inoperable conditions, and a lack of necessary devices and equipment for not yet created procedures. In addition, consenting patients and families was challenging during this initial development of CV surgical procedures. The progression of informed consent (or lack of consent) for CV surgery may be described as having occurred in three phases. The first phase can be classified as “folklore” or “oral tradition,” where the seriousness of the situation was verbally discussed directly with the patient and/or family. The second phase could be categorized as “mythology,” where written documentation and communication with the patient occurred regarding the risk of procedures based on the prior experience of the surgeons. The third phase could be categorized as the “new scrolls,” where written consent was obtained based on data from previous studies and followed regulations established by institutions and regulatory bodies.

In the first or “folklore” phase, CV surgeons verbally informed patients and families (especially in children) that good outcomes were not likely with experimental surgeries. The outcomes were often death but their failures during surgery led to a knowledge base used for future treatment. This knowledge allowed for verbal consenting to become more informative and accurate. Surgeons could then be more honest about their experiences and disclose these failures in addition to successful outcomes. The oral tradition was usually practiced locally within the institution although word quickly spread by means of conferences within the hospital and at regional and national meetings. For the second or “mythology” phase, pioneering surgeons would publish their case reports regarding the success and failures of newly-created surgeries. Increasing patients volumes allowed surgeons to perfect their techniques, though at times their own institutional colleagues refused to refer patients to them. Consent then advanced to a combination of verbal (referring from other medical centers) and written which disclosed risk to patients regarding the potential for poor outcomes despite the high volume of cases performed by these surgeons. Thus, a tradition of excellence and success began at such specialized cardiac institutions. The last or “new scrolls” phase of consenting occurred when the once innovative and pragmatic surgeons became dogmatic in their approach and began to disclose the risks of their established techniques to the patients and followed federal and institutional regulations and guidelines. Such regulations and guidelines were established in the Belmont Report in 1979 and the Code of Federal Regulations (Title 45 Part 46) in 1981 regarding written informed consent. In addition, surgical techniques were being conducted in the basic sciences and animal laboratories and these studies were disclosed to patients prior to their application in the operating room.

The consenting process for CV surgery has gone through many challenges and phases. There have been many lessons to learn from consenting in this risky and innovative field that still apply to medicine today. A current example specific to anesthesiology is how clinicians should be consenting patients regarding the use of new airway devices that are being developed at an extremely rapid pace. We should be forthright and honest with patients not only verbally, but also in the written consent form when clinically trialing new devices and creating new techniques.

References:

<table>
<thead>
<tr>
<th>Year</th>
<th>Person/Team</th>
<th>Place</th>
<th>Clinical Problem</th>
<th>Issues with consent</th>
</tr>
</thead>
</table>
| 1957     | Vincent Gott, MD/William Weirich, MD | University of Minnesota Minneapolis, MN | - Heart block (VSD and TOF)  
- Requirement for pacing of the heart | - No need to submit proposals to institutional animal care committee  
- Move direct from animal to human trials |
| 1955     | John W. Kirklin, MD             | Mayo Clinic Rochester, MN     | Effect or feasibility of heart-lung machine | Told parents not sure if heart-lung machine will work on child and if patient will survive                                                      |
| 1961     | Lowell Edwards, BS/Albert Star, MD | University of Oregon Medical School Portland, OR | Mitral valve replacement                   | - No FDA involvement with devices  
- Team created consent form with lawyer due to fear of medical/legal liability |
| 1963-65 (exact date not specified) | Donald Ross, FRCS | Guy’s Hospital; London, England | - Attempt to identify causation of clotting factors after heart lung machine  
- Unable to stop bleeding | - No consent for blood products  
- Surgeon donated own blood during the surgery |
| 1964     | James Hardy, MD                 | University Hospital; University of Mississippi, Jackson, MS | - Heart failure requiring heart transplant  
- Chimpanzee donor                   | - Patient semi-comatose  
- Consent form did not state chimpanzee donor and that surgery never previously performed |
| 1970     | John Osborn, MD/  
Frank Gerbode, MD         | San Francisco, CA | Heart lung machine emboli caused post-op mental confusion/psychosis | Did not tell patients or nursing staff that a randomized clinical trial was performed |
| 1973     | Norman Shumway, MD              | Stanford University Palo Alto, CA | How to obtain donor heart from  
“dead” or brain dead patient | - Written validation of brain death criteria in California;  
- No prior legal justification for heart transplant donor |
| 1969     | Denton Cooley, MD               | Houston, TX                    | - Resection ventricular aneurysm  
- Potential removal of the heart | - No consent from patient prior to implantation of artificial heart  
- No IRB approval for device trial |
| 1982     | William DeVries, MD             | University of Utah, Salt Lake City, UT | Congestive heart failure                   | Newspaper had access to all medical records since patient sold rights to story of heart implant for $1 million |

*The cases above can be found in Cooper D: Open Heart: The Radical Surgeons who Revolutionized Medicine. New York, Kaplan Publishing, 2010

**NOTES**
Horst Otto Stoeckel: Clinician, Researcher, Administrator, Museum Founder

Anthony L. Kovac, MD

Dept. of Anesthesiology, University of Kansas Med. Ctr., Kansas City, KS

**Research Problem:** What is the story behind the creation and development of the Horst Stoeckel Museum of the History of Anaesthesia?

**Sources:** Oral interview, Stoeckel Museum of History of Anaesthesia, Bonn, Germany

**Methods Approach:** Oral interview, museum research

**Introduction:** Of the premier museums of anesthesia history in the world, the story of the Horst Stoeckel Museum and its founder is not well known outside Germany.

**Early Life and Education:** Horst Otto Stoeckel was born on September 26, 1930, in Lodz, Poland. After completing college in 1949, he attended Humboldt University of Berlin with clinical training at Univ. Hospital Charite in Berlin. During his medical education, three professors were influential as mentors: (1) Karl Lohmann, a physiological chemist; (2) Theodor Brugsch, an internist; and (3) Frederick Dost, a pediatrician and pharmacokinetic (PK) researcher. After medical school, in 1955, Stoeckel received training in the Department of Pharmacology at Humboldt Univ. which helped solidify his interest in PK research and to pursue anaesthesiology as a career. From 1959 to 1960 Stoeckel was staff physician at the Department of Anaesthesiology at Hufeland Hospital Berlin-Bruh and University of Berlin-Bruh. In 1961, only months before erection of the Berlin Wall, he crossed into West Berlin through the Brandenburg Gate. He accepted a position in the Department of Physiology at Humboldt University of Berlin until a position in anaesthesiology became available at the University of Heidelberg in March 1962, where he remained for 12 years.

**Administrator-Chair and Dean:** At the age of 43, Stoeckel was the first chair of anaesthesiology at the University of Bonn. His major goals and later achievements were to develop: (1) a modern and efficient clinical department combining all anesthesia staff into one department; (2) ICU medicine; (3) research teams; and (4) postgraduate education. A significant achievement was his election as Dean of the School of Medicine in 1981.

**Research:** Stoeckel developed a PK research unit which over 20 years produced numerous data and manuscripts on the PK and pharmacodynamics (PD) of anesthetic agents including: (1) development of formulas for correlation of PK and PD; and (2) the first closed loop feedback in a clinical patient.

**Museum:** While chair at the University of Bonn, Stoeckel became friends with American anesthesiologists Frances Foldes, Manny Papper and Richard Kitz, who after seeing his collection, urged him to develop a museum. From his initial 350 items, started in 1995 and dedicated in 2000, the number of items has grown to more than 1000 and forms the basis of the museum, housed on the campus of the University Clinics of Bonn. In the ensuing 11 years, it has grown to 48 themed glass display cases, with each case devoted to a specific theme. Special highlights include: (1) a period original operating theater from 1930; (2) international circle of anesthesia apparatus, books and articles from Germany, France, Great Britain and USA; (3) WW 1 and 2 drugs and anesthesia equipment; (4) large collection (132) of pharmaceutical drug boxes; (5) largest display of Dräger machines outside the Dräger Company in Lubeck, Germany; (6) largest and oldest anesthesia work station; (7) comprehensive collection of pediatric anesthesia and apparatus; (8) blood transfusion; (9) physiological monitoring; (10) airway; and (11) ICU care and resuscitation.
NOTES
Saturday, April 30, 2011 (10:30 a.m. to 12:00 p.m.)

San Antonio 1-3, Gaylord Texan Convention Center

10:30 a.m. Free Papers
John Forestner, M.D., Moderator

10:30 a.m. Lauren Hoke, B.S.
From working on adults to child’s play: Modification in the application of cricoids pressure

11:00 a.m. David Wilkinson, M.B., Ch.B.
A day in the life of an anesthetist, Dr. JFW Silk, in 1909

11:30 a.m. John Forestner, M.D.
Biographical Investigation—Dead Ends and End Runs

12:00 p.m. Closing remarks
Martin Giesecke, M.D.
Cricoid pressure (CP) was described by Dr. W. Cullen in 1776 in London, England to prevent gastric distention during artificial ventilation of drowning victims.\(^1\) Due to concerns about aspiration in parturients, Mendelson recommended emptying the stomach prior to induction of general anesthesia and substituting IV for oral feeds in 1946.\(^2\) In 1961, Sellick described CP to prevent aspiration of gastric contents and insufflation of the stomach in adults by “occlusion of the upper esophagus by backward pressure on the cricoid ring.”\(^3\) In 1970, Stept and Safer included CP as a component of rapid sequence induction and intubation in adults.\(^4\) In 2009, Rice, et al determined from magnetic resonance imaging of adults that CP compressed the hypopharynx and not the esophagus.\(^5\)

However, CP was not studied in children until 1972 when Salem examined CP in 8 fresh infant cadavers and 6 children for the prevention of aspiration.\(^6\) For the experiment in cadavers, contrast material was used while taking x-rays to determine the effectiveness of CP in preventing contrast from appearing at the upper esophagus. In the cadavers, CP was applied while the esophagus was filled via a catheter in the stomach (a catheter was placed in the nose in a second experiment) to detect the seepage of saline in the oropharynx. For the study in children, the head was extended and nasogastric tubes previously filled with contrast material were tied and placed in the esophagus via the nose and mouth. X-rays were taken before and during application of CP to determine if CP blocked the nasogastric tubes.

Salem later studied the use of CP in 1974 in 10 children to prevent insufflation of the stomach during bag mask ventilation (BMV) and mouth-to-mouth resuscitation.\(^7\) BMV was performed for two-minute intervals with and without application of CP. A stomach tube was inserted to measure the volume of gastric gases and a respirometer was used to measure the volume of exhaled gas after each period of BMV. Table 1 represents the development and use of CP from adult studies to children.

Cricoid pressure has been studied in children, but the amount of force required to provide satisfactory occlusion is still unknown.\(^8\) In adults, the amount of cricoid force was found to be 44 newtons (N) by using a water column to measure the intraluminal criocopharyngeal pressure depending on the applied cricoid force.\(^9\) Cadaveric studies reported a force of 30 N to prevent regurgitation of gastric contents by using an apparatus connected to a hand-held cricoid yoke to measure the applied force during CP.\(^10\) A study in manikins simulating a 5-year-old child determined a mean force of 22.4 – 25.1 N to prevent gastroesophageal reflux.\(^11\)

CP has been routinely used by anesthesia providers in children despite the lack of studies regarding the appropriate force required. However, there is a lack of standardized teaching and guidelines about force applied, timing of use, contraindications, and differences specific to the age and size of children.\(^12\) Consequently, incorrect application of CP may not prevent aspiration, such as in children less than 3 years of age with bowel obstruction or ileus.\(^13\) There may also be other risks by the erroneous application of CP by different specialties, such as for patients in the emergency department. In the future, studies regarding CP should be conducted specifically in children prior to implementation in routine clinical care.

References
11. Simmons F. BJA 2000; 85: 164
<table>
<thead>
<tr>
<th>Year</th>
<th>Journal/author</th>
<th>Location</th>
<th>Patient population</th>
<th>Type of study</th>
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<td>Middlesex Hospital; London, UK</td>
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<td>Described the use of cricoid pressure to prevent regurgitation and insufflation.</td>
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<td>1972</td>
<td>BJA/Salem MR</td>
<td>Cook County Hospital; Chicago, IL</td>
<td>-Infant cadavers -Children 1 – 12 years</td>
<td>Prospective</td>
<td>-8 cadavers -6 children</td>
<td>Measured cricoid pressure in infants and its efficacy with presence of NG tube.</td>
</tr>
<tr>
<td>1974</td>
<td>Anesthesiology/Salem MR</td>
<td>Cook County Hospital; Chicago, IL</td>
<td>Children 3 months – 5 years</td>
<td>Prospective</td>
<td>10</td>
<td>Examined gentle vs firm cricoid pressure.</td>
</tr>
<tr>
<td>1985</td>
<td>Crit Care Med/Admani M</td>
<td>Cook County Children’s Hospital; Chicago, IL</td>
<td>Neonates 5.2 ± 1.5 days with RSV</td>
<td>Prospective</td>
<td>10</td>
<td>Measured the prevention of gastric inflation with cricoid pressure in neonates.</td>
</tr>
<tr>
<td>1993</td>
<td>Anesthesiology/Moynihan RJ</td>
<td>Stanford University; Stanford, CA</td>
<td>Children 2 weeks – 8 years</td>
<td>Prospective</td>
<td>59</td>
<td>Determined airway pressure for gastric inflation with and without cricoid pressure in paralyzed and non-paralyzed infants and children.</td>
</tr>
<tr>
<td>1994</td>
<td>BJA/Stoddart PA</td>
<td>Hospital for Sick Children; London, UK</td>
<td>Children</td>
<td>Survey</td>
<td>851 anesthesiologists</td>
<td>Surveyed anesthesiologists regarding anesthetic technique, experience, and training in infants undergoing pyloromyotomy.</td>
</tr>
<tr>
<td>1999</td>
<td>Anesthesiology/Warner MA</td>
<td>Mayo Clinic; Rochester, MN</td>
<td>Children</td>
<td>Retrospective</td>
<td>56,138 patients</td>
<td>Determined the frequency and clinical significance of pulmonary aspiration in infants and children.</td>
</tr>
<tr>
<td>2009</td>
<td>Peds Anesth/Admed Z</td>
<td>Children’s Hospital of Michigan; Detroit, MI</td>
<td>Children</td>
<td>Survey</td>
<td>Pediatric anesthesiologists (number not stated)</td>
<td>Surveyed pediatric anesthesia providers regarding practice and knowledge of cricoid pressure.</td>
</tr>
</tbody>
</table>
John Frederick William Silk was born in January 1858 in Gravesend, Kent. The son of a solicitor, he followed the normal middle class route of schooling, a private boarding school fairly close to home followed by matriculation and application to attend medical school. He was accepted by Kings College, winning a scholarship to attend. He qualified in 1881 and after house posts at Kings and then in Leeds, he started as a general practitioner in 1885 in London. At the same time he began to develop an anaesthetic practice working initially as a registrar and then gaining honorary consultant posts at a variety of London Hospitals.

By 1909, he had become a major figure both clinically and politically in London anaesthesia. He had become a full time anaesthetist in 1890, and after posts at Guys he was appointed to the staff of Kings College Hospital.

A typical day’s work will be described together with a review of his outside interests and subsequent life.
A Wood Library-Museum fellowship supported an investigation of the life of Frank J. Murphy, M.D., who invented the “Murphy eye.” Despite wide use of the eponym, very little is known about the man. Only limited information could be found at the WLM, in libraries, and in internet searches. This included two substantial publications by Murphy, including the Murphy eye paper,¹ two biographical information forms from the files of the American Society of Anesthesiologists, a copy of his obituary in the files of the Academy of Anesthesiology at the WLM, and two letters which mentioned him.

Other sources of information were surprisingly unhelpful. Schools where he studied, hospitals where he worked, and states where he practiced provided little further detail. I investigated individuals who were tangentially associated with Murphy (John Lundy, Wesley Bourne, Harold Griffith)—this produced only minimal data. A few impressions were offered by three living individuals who could recall meeting him. Information on his Naval service had apparently been destroyed. Murphy’s membership in the Anesthetists’ Travel Club was documented, but nothing he did for that elite group was ever noted. After more than three years of work, the personal information needed complete a profile of Frank Murphy had not yet emerged from the usual historical sources. The investigation was at a dead end, which made finding his surviving family essential to finishing a biographical study.

I found an address for his wife in northern Idaho, on a letter forwarding his obituary to the offices of the Academy of Anesthesiology. The obituary mentioned that both of Murphy’s two daughters lived north of Coeur d’Alene, Idaho, under their married names: Elizabeth O’Brien and Margaret Hawkins. I obtained over forty telephone numbers for O’Brien and Hawkins listings in the Idaho panhandle, but calls yielded no Murphy relatives. Murphy had owned a cattle ranch in the area, called the 4M Charolais Ranch, but there was no telephone under that listing.

One ASA form listed Farragut Naval Hospital in Idaho as Murphy’s point of discharge from the Navy. Numerous internet searches failed, until I used Farragut and Navy, and omitted hospital. That search described an enormous Naval training base built during World War II on Lake Pend Oreille, Idaho, later abandoned and torn down in the late 1940’s. Pictures of the Farragut Naval Training Base, on one website, were credited to the Bonner County Historical Society in Sand Point. I called the Society there, and a curator, Anne Ferguson, told me to call a rancher down in the Hoodoo Valley, Jack O’Brien, who she said knew all the cattlemen down there. She called him, and he called me, to confirm that he was Murphy’s son-in-law. I visited the family there for a week, and they shared Murphy’s files and family lore with me, to complete what was needed for an adequate historical profile.²

Serendipity and pure luck, supported by a lot of hard investigation, were the keys to completing this project. Some of Murphy’s files, and a “Murphy tube” marked by him with his initials were donated by his family to the WLM collection.

NOTES