2019 GSA SUMMER MEETING

The Ritz-Carlton, Amelia Island
JUNE 28-30

Michael Duggan, MD, Activity Director

Jointly Provided by...

American Society of Anesthesiologists™

GEORGIA SOCIETY OF ANESTHESIOLOGISTS GSA

President's Perspective

Welcome to the 2019 Summer Meeting of the Georgia Society of Anesthesiologists (GSA) at this beautiful, luxurious resort facility on Amelia Island. We are blessed to have this special opportunity to convene, learn, collaborate and relax. I am so very excited for this particular GSA meeting, as I expect it to be unique and extraordinary in its meeting content and its potential impact. I am so glad that you have joined us for this great opportunity in this very special location.

The meeting will be opened by ASA President-Elect Dr. Mary Dale Peterson who will provide the ASA Update. This will not be just another traditional, repetitive summary of the myriad of ASA activities. Dr. Peterson is one of the most informed, respected, effective and impactful leaders and physician executives in all of medicine. The message that she will bring will most certainly include very current and concerning issues related to potential federal health policy proposals that will impose serious consequences to our medical specialty if enacted. We must be present and remain engaged in the process to obviate change that diminishes our incredible progress in surgical and procedural patient safety and quality. Mary Dale will call us to arms. We should all take some comfort in knowing that she will be leading the ASA Executive Committee through these complex times. You will understand more completely when you hear her presentation. Please take the time to meet my good friend from Corpus Christi, TX.

The next portion of our academic program will be three lectures related to the responsible use and stewardship of perioperative opioids and appropriate opioid-sparing pain management strategies. Through a France Foundation-supported program sponsored by ASA, we will have three true content experts with us to provide world-class lectures related to this very important and current public health concern. One of those speakers, Dr. Jim Rathmell, is Professor and Chair of Anesthesiology, Brigham and Women's Health Care, Harvard Medical School. Dr. Rathmell was very briefly a member of the GSA in the 1990s, and we welcome him back to the South. Over the last 20 years, Jim has established himself as one of the leading academic anesthesia and pain medicine specialists in the world. We are truly fortunate to host these leading experts at our GSA meeting. We have much to learn and they have so very much wisdom to impart.

Saturday's lectures will complete with Dr. Mark Zakowski, a recent past president of the California Society of Anesthesiologists and the Society of Obstetric Anesthesiology and Perinatology. Dr. Zakowski practices at The Cedars Sinai Hospital in Los Angeles, where he is Chief of Obstetric Anesthesiology. Dr. Zakowski is a highly respected expert in the sub-specialty of obstetric anesthesiology, and he will be an exceptional closer to a truly world-class panel of expert lecturers and relevant presentations. I simply cannot imagine a more valuable or impactful opportunity in an anesthesia-related classroom than Saturday morning at the GSA.

When the academic agenda is completed, please enjoy the extraordinary amenities of this fabulous facility and location. I must commend Dr. Mike Duggan, the 2019 GSA Summer Activity Director, and the GSA administrative staff for organizing this high-quality meeting. I also commend and thank you, the GSA member and registrant, for your participation and significant interest in our organization. We absolutely depend on you to continue the mission of GSA, to facilitate our growth as an organization, and to continue to make a very real difference to the patients and the communities that we serve.

Again, welcome to GSA 2019. Please enjoy.

Steve Sween, MD, FASA
GSA President

General Information

General Session

All CME sessions will take place in Talbot E-H. Looking to complete the three hours of opioid abuse prevention CME the State of Georgia requires? Participate in the June 29 Opioid Abuse Prevention lectures and receive three hours of CME.

Poster Presentations

Georgia Anesthesia Residents were invited to submit abstracts for poster presentations at the 2019 Summer Meeting. Presenters will deliver overviews of work to conference attendees and answer questions on June 29 (9:30 am – 10:00 am). Join us for these informative sessions.

Hospitality Events

Each evening, GSA invites attendees and exhibitors to network during the hospitality events. Join us on Friday, June 28 at 7:00 pm in the exhibit hall (Talbot D) and Saturday, June 29, beachfront in the Courtyard at 6:30 pm for networking with peers and industry partners.

Bring the entire family for an Ice Cream Sundae Social on Saturday, June 29 at 4:00 pm at the Talbot Colonnade. This event is sponsored by the GA Academy of Anesthesiologist Assistants.

Statement of Need

The GSA Summer Meeting provides a forum devoted to educational needs; informs attendees on current issues in anesthesiology and perioperative medicine across multiple disciplines; networking opportunities with peers and experts in the field; and exposure to relevant products/services of interest to our attendees in the exhibits area.

Target Audience

This activity is intended for anesthesiologists, anesthesiology residents, anesthesiologist assistants and students. Researchers and other health care professionals with an interest in anesthesiology may also participate.

Program Committee & Faculty

Program & Education Committee

Korrin Scott Ford, MD, Chair
Shvetank Agarwal, MBBS, Vice-Chair
Heather Dozier, MD
Gautam Sreeram, MD
Joseph Kirk Edwards, MD
Gina Scarboro, CAA
Alex Papangelou, MD
Vikas Kumar, MD
Stephen Anderson, MD
Allyson Speaks, MD
Kris Tindol, CAA
Milad Sharifpour, MD
Michael Duggan, MD
Ed Foley, MD

Summer Activity Directors

Michael Duggan, MD

GSA Member Faculty

Ricardo Diaz Milian, MD
Associate Professor
Medical College of Georgia

Invited Faculty

Josceyln Hughes, JD
Associate Attorney
Allen & McCain, PC

Mary Dale Peterson, MD, MSHCA, FACHE
President - Elect
American Society of Anesthesiologists

James Rathmell, MD
Chair of the Department of Anesthesiology, Perioperative Medicine and Pain Management
Brigham and Women's Hospital, Boston, MA

Shalini Shah, MD
Vice-Chair, Dept Anesthesiology
Director, Pain Services
University of California, Irvine

Santhanam Suresh, MD
Chair of the Department of Pediatric Anesthesiology, and Director of Pain Management
Lurie Children's Hospital, Chicago

Kevin Vorenkamp, MD, FASA
Medical Director
Duke Raleigh Pain Medicine

Mark Zakowski, MD, FASA
Chief, Obstetric Anesthesiology
Past President, SOAP
Cedars Sinai

Disclosure Policy

The American Society of Anesthesiologists remains strongly committed to providing the best available evidence-based clinical information to participants of this educational activity and requires an open disclosure of any potential conflict of interest identified by our faculty members. It is not the intent of the American Society of Anesthesiologists to eliminate all situations of potential conflict of interest, but rather to enable those who are working with the American Society of Anesthesiologists to recognize situations that may be subject to question by others. All disclosed conflicts of interest are reviewed by the educational activity course director/chair to ensure that such situations are properly evaluated and, if necessary, resolved. The American Society of Anesthesiologists educational standards pertaining to conflict of interest are intended to maintain the professional autonomy of the clinical experts inherent in promoting a balanced presentation of science. Through our review process, all American Society of Anesthesiologists accredited activities are ensured of independent, objective, scientifically balanced presentations of information. Disclosure of any or no relationships will be made available for all educational activities.

Planner, Faculty and Staff Disclosure

Individual w/ Disclosed Financial Relationship	Commercial Interest Disclosed	Nature of Relationship w/ the Commercial Interest
James Rathmell, MD	American Board of Anesthesiology	Self: Honoraria
Shalini Shah, MD	Pfizer, Inc.	Self: Funded Research
Santhanam Suresh, MD	Pacira	Consulting Fees

All remaining faculty, planners and staff have reported no relevant financial relationships with commercial interests

Continuing Medical Education

ACCME Accreditation and Designation Statements

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Society of Anesthesiologists and the Georgia Society of Anesthesiologists. The American Society of Anesthesiologists is accredited by the ACCME to provide continuing medical education for physicians.

The American Society of Anesthesiologists designates this live activity for a maximum of 8.5 *AMA PRA Category 1 Credits™*. Physicians should claim only credit commensurate with the extent of their participation in the activity.

CME Credits

Date	Time	Topic	CME Credits
6/29/19	7:30 – 8:30a	ASA Update	1
6/29/19	8:30a – 12:00p	Anesthesiologists Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics	3.5
6/29/19	12:00 – 1:00p	SOAP Enhanced Recovery after Cesarean	1
6/30/19	7:30 – 8:30a	Obstetric Hemorrhage Update	1
6/30/19	9:00 – 10:00a	Let's Talk Law with Anesthesiologists	1
6/30/19	10:00 – 11:00a	Expiratory Central Airway Collapse, Anesthetic Implications	1
		Total	**8.5**

Disclaimer

The information provided at this accredited activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's medical condition

Learning Objectives

ASA Updates

Mary Dale Peterson, MD, MSHCA, FACHE

At the completion of this session, the participants will learn:

- How ASA is working with members nationally and in the states to address current and emerging opportunities
- Key trends and challenges facing the specialty in the market, legislature and regulatory, nationally and in the states

Dr. Peterson has no financial relationships to disclose. She will not discuss products which she had a role in developing. She will not include a discussion of off label uses of commercial products and/or unapproved investigational use of any product.

ASA: Working for You

Mary Dale Peterson, M.D., MSHCA, FASA | June 29, 2019
m.peterson@asahq.org

American Society of Anesthesiologists™

Disclosures & Objectives

- Nothing to disclose

- Objectives: Participants will learn
  - How ASA is working with members nationally and in the states to address current and emerging opportunities
  - Key trends and challenges facing the specialty in the market, legislature and regulatory, nationally and in the states

Special “Thank You” to…

ASA Director & Alternate Director

Director
Georgia Society of Anesthesiologists
Timothy N. Beeson, M.D.
Martinez, GA

Alternate Director
Georgia Society of Anesthesiologists
Matt Klopman, M.D., FASA
Sandy Springs, GA

ASA Past Presidents

- 1965: Perry P. Volpitto, M.D.
- 1970: John E. Steinhaus, M.D.
- 1999: John B. Neeld, Jr., M.D.

Special “Thank You” to…

ASA Committee Chairs

- Abstract Review Subcommittee on Experimental Neurosciences: Paul S. Garcia, M.D. Ph.D.
- Committee on Governance Effectiveness and Efficiencies: Steven L. Sween, M.D.

State Component Officers

- President: Steven L. Sween, M.D.
- Immediate Past President: Maurice Gilbert, M.D., FASA
- Vice-President: Justin Ford, M.D.
- Secretary/Treasurer: Keith Johnson, M.D., FASA

Today's Discussion

- ASA: Who We Are
- Membership Update
- ASAPAC Update
- Key ASA Initiatives & Programs
- Q & A

We are ASA: Leaders in Patient Safety

- **Mission**: Advancing the practice and securing the future
- **Vision**: A world leader improving health through innovation in quality and safety
- **Values**: Patient safety, physician-led care and scientific discovery

Strategic Pillars

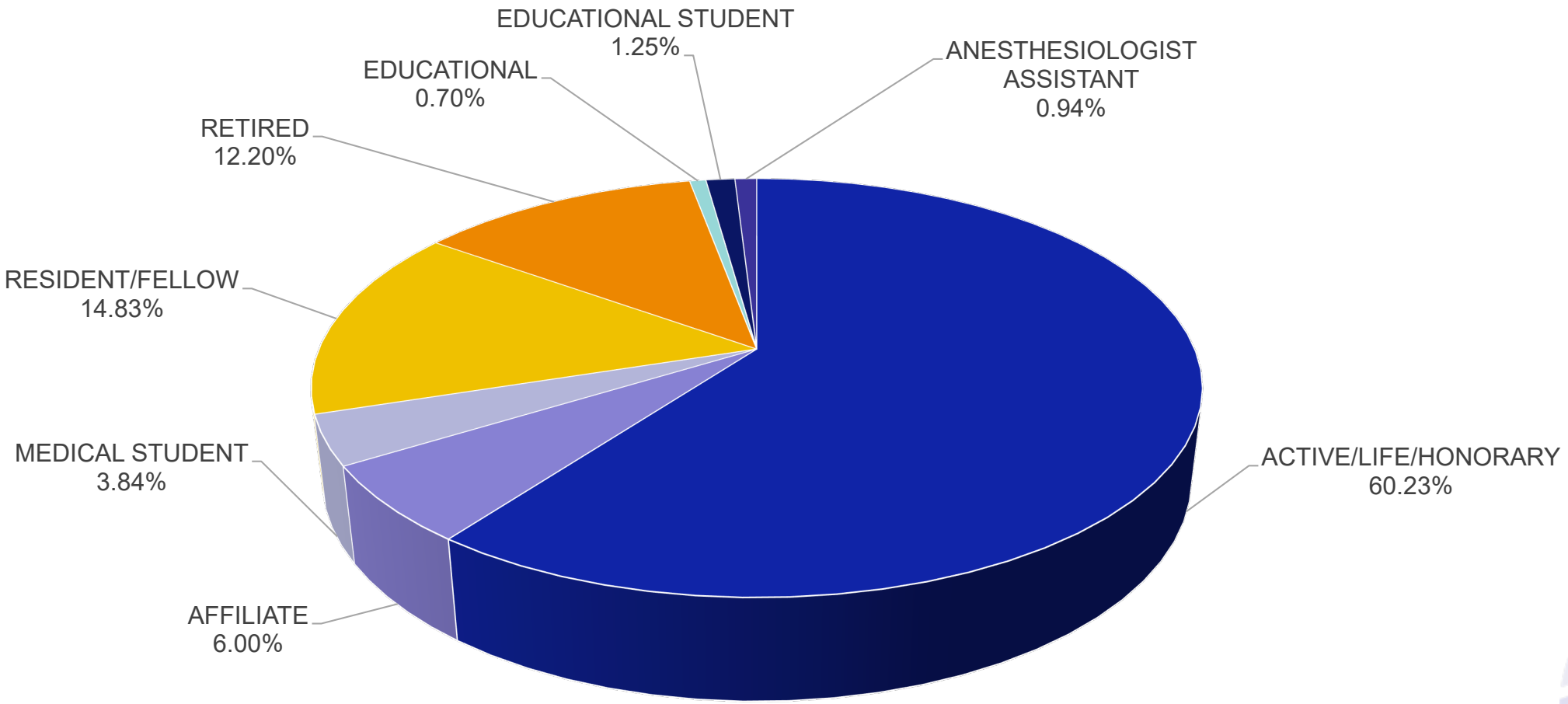
1. Advocacy
2. Quality & Practice Advancement
3. Educational Resources
4. Member Growth & Experience
5. Health Systems Leadership
6. Organizational Excellence
   a) Internal Operations
   b) Growth & Business Development

Membership Update

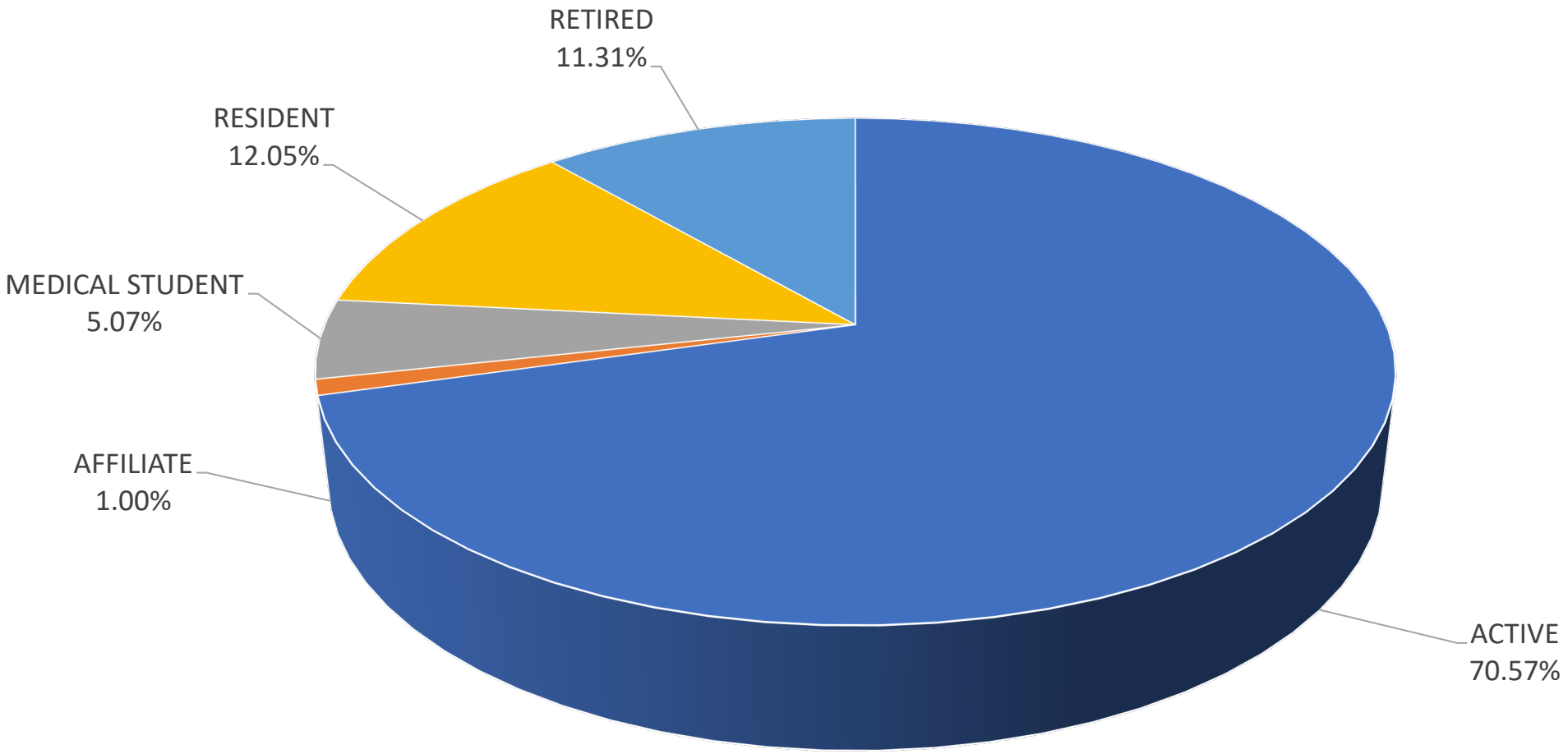
American Society of Anesthesiologists™

asahq.org

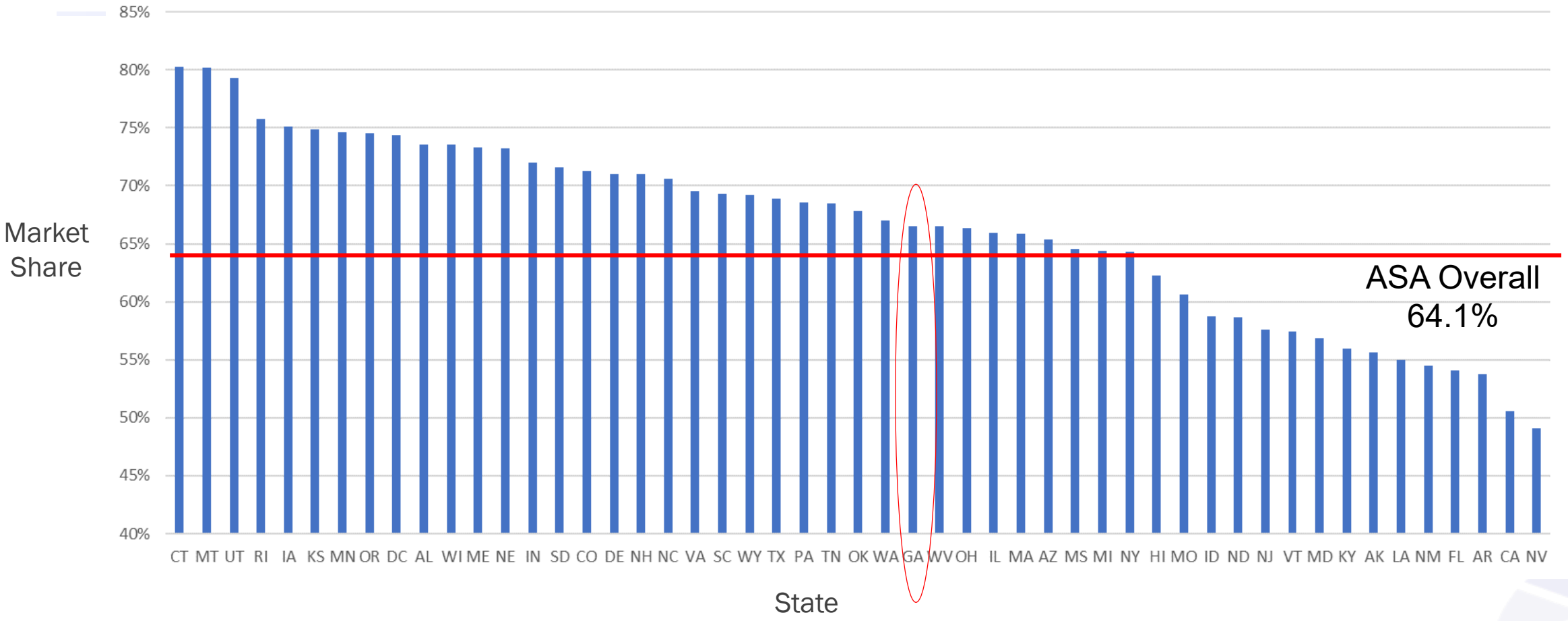
ASA Member Distribution



Georgia Society Member Distribution



ASA Market Share of Physician Anesthesiologists by State



Areas of Focus for 2019

Continue expanding Anesthesia Practice Administrators & Executive Educational membership

- Membership grew 130% in 2018 through direct outreach to practice administrators. Most pay no dues as this is a benefit of a group with 90% or more physicians holding Active membership.

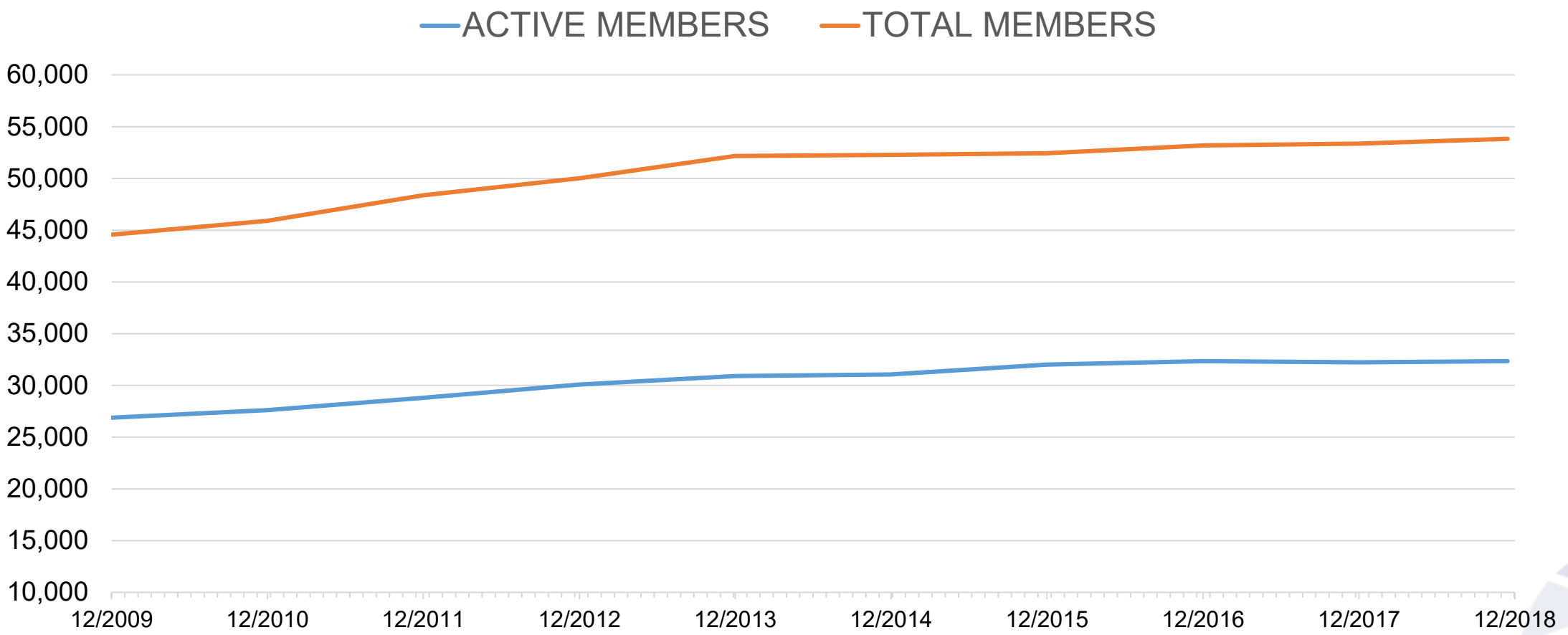
Continue expanding Anesthesiologist Assistant membership

- Membership grew by 9% in 2018 through direct outreach to AAAA members.

Continue growth of the FASA program

- Over 700 Fellows to date

10-year ASA Member Counts



ASAPAC Update

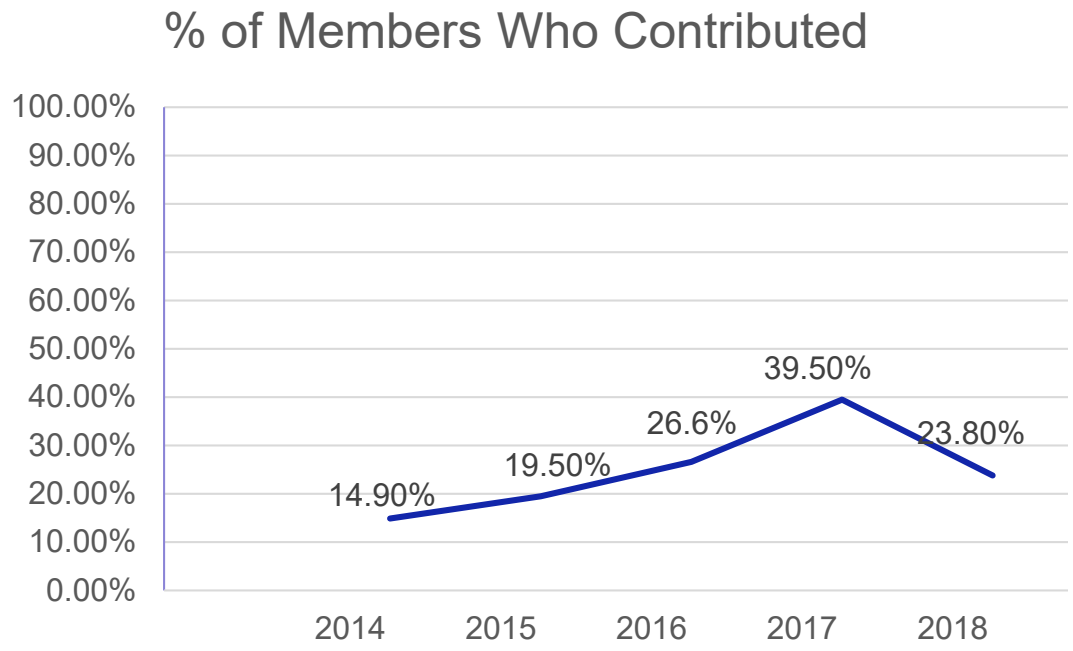
American Society of Anesthesiologists™

asahq.org

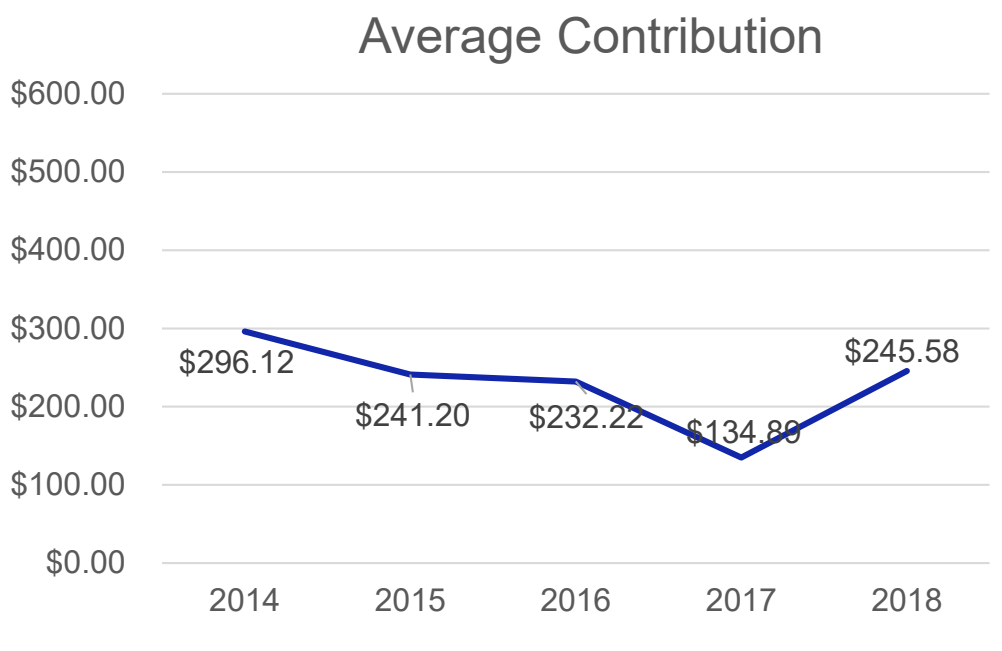
Why Contribute? Our Dollars Make a Real Difference

- Patient safety and quality of care
- Assure physician-led team-based care
- Advocating for scientific discovery, the cornerstone of what we are
- Assuring adequate support and advocacy for education and training the next generation of anesthesiologists
- **The power of unity and combined resources!**

ASAPAC Activity by Georgia Members



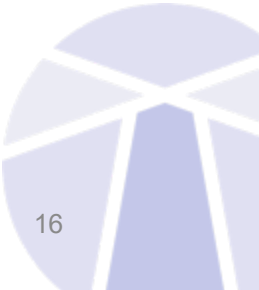
ASA's overall 2018 participation rate was 21.2%



ASA's average contribution in 2018 was $268.40

ASAPAC Support for Georgia in 2018

- Rep. Sanford Bishop (D-GA-02)
- Rep. Earl Carter (R-GA-01)
- Rep. Douglas Collins (R-GA-09)
- Rep. Tom Graves (R-GA-14)
- Rep. Henry Johnson (D-GA-04)
- Rep. Barry Loudermilk (R-GA-11)
- Rep. James Scott (R-GA-08)
- Rep. David Scott (D-GA-13)
- Rep. Robert Woodall (R-GA-07)
- Sen. Johnny Isakson (R-GA-Sen)



2018 Residency Programs at 100%

- Baylor Scott & White
- Beaumont Health
- Cleveland Clinic Florida
- Emory University
- Geisinger Health System
- Georgetown University
- Indiana University
- Kansas University – Kansas City
- Kansas University – Wichita
- Louisiana University – Shreveport
- Maine Medical Center
- Mayo Clinic Arizona
- Mayo Clinic Florida
- Mayo Clinic Minnesota
- Michigan State University
- Mount Sinai – Miami Beach
- Mount Sinai – New York
- Ochsner Medical Center
- Tulane University
- University of Alabama
- University of Arkansas
- University of Chicago
- University of Colorado
- University of Connecticut
- University of Florida-Jacksonville
- University of Miami
- University of Nebraska
- University of Oklahoma
- University of Pittsburgh Medical Center
- University of Tennessee-Knoxville
- Virginia Commonwealth University
- Virginia Mason
- West Virginia University

Day of Contributing 2019

June 20, 2019

Most successful DoC in ASAPAC history
Raised $907,266 from 3,457 donors!

Top contributing states:
- California - $95,434.69
- Texas - $86,463.41
- Indiana - $79,319.31
- Alabama - $41,786.96
- Missouri - $38,146.00

States with highest number of donors:
- California - 459
- Texas - 329
- Indiana - 319
- Florida - 176
- North Carolina - 115

States that had the greatest percentage of members contributing:
- Indiana - 32.79%
- Montana - 20.98%
- Alabama - 20.58%
- South Dakota - 20.55%
- North Dakota - 20.41%

Georgia – Day of Contributing

- 113 Donors (#7 ranking)
- 10.65% Participation (#15 ranking)
- $29,688.71 Raised (#9 ranking)
- 2018 DoC – Georgia had 30 donors, 3.25% participation and raised $7,660.00

ASAPAC
American Society of Anesthesiologists™

Advocacy & Awareness

American Society of
Anesthesiologists™

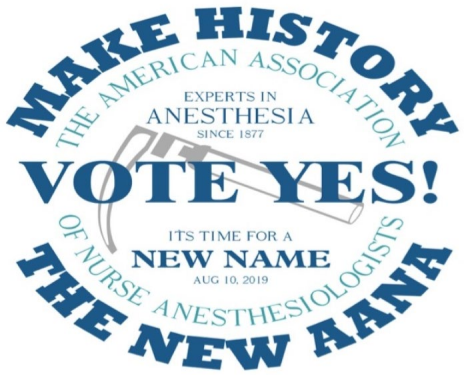
asahq.org

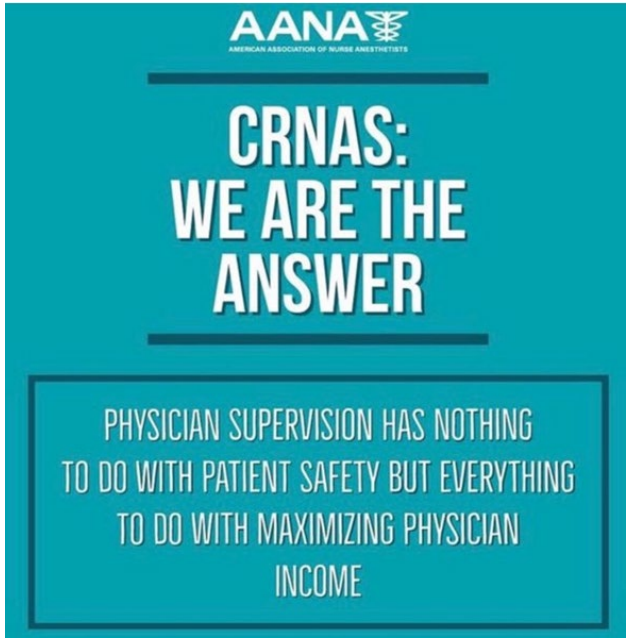
Advocacy Update - *2018 Accomplishments*

- **Preserving Physician-delivered and Physician-Led Anesthesia Care**
  - No adverse state laws (New York win)/No opt-outs
  - VA APRN Rule
- **Leading Voice in Addressing the Opioid Crisis**
  - Provisions in H.R. 6, the SUPPORT for Patients and Communities Act
  - Recommendations included in the HHS Interagency Task Force on Pain Management Best Practices
  - Premier Inc./ASA joint pilot
  - National RX Drug Abuse and Heroin Summit
- **A Leader in Drug Shortage Solutions**
  - Drug Shortage Summit/Recommendations
  - HHS Task Force on Drug Shortages
  - Member survey
  - First medical specialty on-line drug shortage registry

AANA Messaging

Florida Association of
Nurse Anesthetists (FANA)





AANA
AMERICAN ASSOCIATION OF NURSE ANESTHETISTS

222 South Prospect Avenue
Park Ridge, Illinois 60068-4001
847.692.7050
AANA.com

Safe and effective anesthesia
CARE
for every patient.

CRNAs: We are the Answer

As advanced practice nurses, Certified Registered Nurse Anesthetists (also recognized by the titles CRNA, nurse anesthetist, Certified Registered Nurse Anesthesiologist, and nurse anesthesiologist) are proud to be part of America's most trusted profession. Patients who require anesthesia for surgery, labor and delivery, emergency care, or pain management know they can count on a CRNA to stay with them throughout their procedure, advocate on their behalf, and provide high-quality, patient-centered care. Likewise, healthcare facilities depend on CRNAs to serve the most patients for the least cost; deliver quality care to rural and other medically underserved areas; and positively impact the nation's growing healthcare cost crisis. CRNAs are *the* answer to achieving a safer healthcare environment and more cost-efficient healthcare economy.

This document was prepared by the American Association of Nurse Anesthetists (AANA) on behalf of its 53,000 members and the patients they serve to define the increasing role and value of CRNAs and provide an accurate description of anesthesia practice in today's U.S. healthcare system.

Looking Back

Nurse anesthetists have been the backbone of anesthesia delivery in the United States since the American Civil War. The **first U.S. healthcare providers to specialize in anesthesiology**, these pioneering nurses introduced a grateful public to a world of previously unimagined healthcare possibilities. **Since the late 1800s, anesthesiology has been recognized as the practice of nursing;** it wasn't until nearly 50 years later that physicians entered the field and anesthesiology also gained recognition as the practice of medicine. Over the years, despite numerous legal challenges by organized medicine, the courts have consistently upheld the doctrine of anesthesiology as nursing practice. For a timeline of nurse anesthesia history, see https://www.aana.com/history.

Provider Types

CRNAs and physician anesthesiologists are the predominant anesthesia professionals in the United States. Another anesthesia provider type is anesthesiologist assistants (AAs). **These healthcare workers serve as assistants to physician anesthesiologists,** and by law can only practice under the direct supervision of a physician anesthesiologist.

Anesthesia services are provided the same way by nurses and physicians; in other words, **when anesthesia is provided by a CRNA or by a physician anesthesiologist, it is impossible to tell the difference between them.** Both CRNAs and physician anesthesiologists provide anesthesia for the same types of surgical and other procedures, in the same types of facilities, for patients young to old; one provider type is not required over the other in any given situation. In fact, ***most* of the hands-on anesthesia patient care in the United States is delivered by CRNAs.** Yet, while CRNAs are not required by federal or state law to work with physician anesthesiologists (except in New Jersey, which requires CRNAs to enter into a joint protocol with a physician anesthesiologist), in many healthcare settings CRNAs and physician anesthesiologists work together to provide quality patient care. Landmark research, however, has confirmed that anesthesia is equally safe regardless of whether it is provided by a CRNA working solo, a physician anesthesiologist

1

ASA Response

- "Some have asked us to "respond" directly to the AANA. However, I contend that responding to this blatantly unprofessional document is not the answer."
- "…unlike the authors of the AANA statement,…I have no ill will toward our colleagues."
- "We will remain focused on where it really matters – the federal and state legislative and regulatory bodies and with the public."
- **"…we and the patients we serve are winning!"**

A MESSAGE FROM the President

LINDA J. MASON, M.D., FASA

ASA President Responds to AANA Statement 'CRNAs: We are the Answer'

Many of you read my May 27 Monday Morning Outreach response to the American Association of Nurse Anesthetists' (AANA's) newest anti-anesthesiologist, anti-team-based-anesthesia campaign, "CRNAs: We are the Answer." It is our fear that this campaign has the potential to undermine productive working relationships and ultimately harm patient safety. We will not let this happen. I am grateful for all your feedback so far.

I want to provide you with some additional information about ASA's view of this malicious and irresponsible statement. It is my intention that ASA remain focused on where we have been succeeding most in protecting our patients – in the federal and state regulatory and legislative arenas and with our patients themselves.

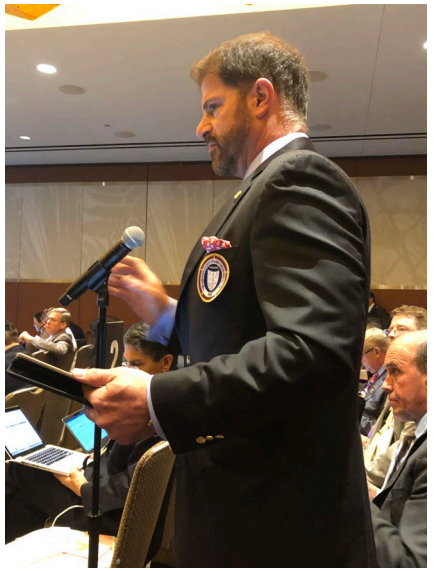
June 3, 2019

ASA Advocacy - *2019 Agenda*

"Nurse Anesthesiologist"

Multi-pronged Strategy and Tactics

- **States**
  - Strengthen Truth in Advertising laws.
  - Work with crisis states (NH)
  - AMA/SOPP - ASA secured enhanced AMA policy in opposition to misleading titles and descriptors.
- **ASA rebranding**



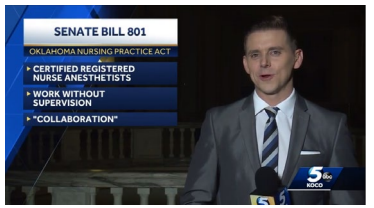
Mike Simon, M.D., member of ASA's delegation to the AMA House of Delegates, gives testimony on the misleading "nurse anesthesiologist" initiative

ASA Successes

- 2019: **Pro-active New York State Legislation Introduced (not considered)/Nurses' bill did not advance**
- 2019 to date: **9-0 in states**
- 2018: **New York State Win**
- 2017: **VA APRN Final Rule**
- 2012 to date: **No opt-outs**

Arkansas Democrat Gazette

Nurse anesthetist bill fails House vote



SANTA FE NEW MEXICAN

LETTERS TO THE EDITOR

Removing physician involvement from anesthesia wrong

Risks Remain in the States

ASA Advocacy - *2019 Agenda*

Out of Network Payment

- **"Benchmarking" –** Payment for out-of-network services set in law to be paid at "mean in-network allowed rates" (as set by insurance companies) or Medicare rates.
- **"In-Network Guarantee"** – Hospital-based physicians required to be in the same network as the hospital. Ex. The anesthesia group is in 5 of the 6 insurance networks served by the hospital. Without the 6th insurance company, the group can no longer work at the hospital.
- **"Single Payment" or "Bundle"** – Physicians no longer negotiate with insurers or bill insurers. Only the hospital can negotiate and bill the insurer. The physicians must make payment arrangement with the hospital.
- **Poorly designed "arbitration" models** – An arbitration mechanism is created to address physician and insurance company payment disputes. However, the mechanism is designed to benefit insurers and give them more leverage in the arbitration process.

U.S. Senate HELP Committee
"Alexander-Murray"

U.S. SENATE COMMITTEE ON
Health, Education
Labor & Pensions

S.1895, the Lower Health Care Costs Act

Title I – Ending Surprise Medical Bills

Section 103 –

Establishment of Benchmark.--A group health plan or health insurance issuer offering group or individual health insurance coverage shall pay facilities or practitioners furnishing services for which such facilities and practitioners are prohibited from billing enrollees under section 2719A(g), the median in-network rate, using a methodology determined under subsection (b) for the same or similar services offered by the group health plan or health insurance issuer in that geographic region.

06.26.19

Alexander: Senate Health Committee Votes 20 to 3 for Bipartisan Bill to Reduce Health Care Costs

"This legislation helps Americans in three major ways: It ends surprise billing, creates more transparency, and increases competition to bring down prescription drug costs."

— Chairman Lamar Alexander

ASA Opposes "Alexander-Murray"

"I am writing on behalf of the members of the American Society of Anesthesiologists (ASA) to express our strong opposition to the surprise billing provisions included in S. 1895, "The Lower Health Care Costs Act..."

"Over 90 percent of physician anesthesiologists claims are in network…"

"…It will address out-of-network physicians and other providers; but, it will also seriously adversely impact those physicians and other providers who have made a good faith effort to successfully negotiate in-network agreements."

- ***ASA President Linda Mason, M.D.,FASA to Senate HELP Committee***

American Society of Anesthesiologists

June 25, 2019

The Honorable Lamar Alexander, Chair
Senate Health, Education, Labor and Pensions Committee
455 Dirksen Office Building
Washington, D.C. 20510

The Honorable Patty Murray, Ranking Member
Senate Health, Education, Labor and Pensions Committee
154 Russell Senate Office Building
Washington, D.C. 20510

Dear Chairman Alexander and Ranking Member Murray:

I am writing on behalf of the members of the American Society of Anesthesiologists (ASA) to express our strong opposition to the surprise billing provisions included in S. 1895, "The Lower Health Care Costs Act." We believe that patients should be protected from surprise medical bills; however, rate setting out-of-network payments to the median in-network rate will have unintended consequences for patients, resulting in decreased access and increased costs across the delivery system.

Over 90 percent of physician anesthesiologists claims are in network. Accordingly, ASA believes that any solution to surprise medical bills must align with the magnitude of the problem. The solution included in S.1895 far exceeds a reasonable solution. It will address out-of-network physicians and other providers but it will also seriously adversely impact those physicians and other providers who have made a good faith effort to successfully negotiate in-network agreements.

Under a federally imposed benchmark or essentially a "payment cap", insurance companies will be emboldened to create and maintain even more narrow networks than those that have currently caused this problem. Any incentive for insurance companies to create adequate networks of providers will be eliminated. As a result, it is expected that patients receiving health care from out-of-network providers will only increase.

This proposal completely disrupts market driven negotiations between insurance companies and providers. We urge the Committee to drop this proposal from S. 1895, "The Lower Health Care Costs Act," and replace it with an independent dispute resolution process that resembles the proposal authored by Senator Cassidy and the Bipartisan Workgroup and has already been proven and successful in New York and several other states.

New York has implemented a "baseball style" arbitration process and the literature has identified it as both fair and successful. To illustrate, in New York, the patient is removed from the process of determining out-of-network payment. An out-of-network provider or health insurer may submit

Mission: Advancing the Practice and Securing the Future asahq.org

ASA President's Call to Action

A MESSAGE FROM
the President

LINDA J. MASON, M.D., FASA

We are at an important crossroads in the history of our specialty. Whether you are in-network or out-of-network, the recent machinations of Congress on the surprise medical bill issue represent a serious threat to our practice. Fortunately, we have an opportunity to quash that threat. But we must all act.

The U.S. Senate has set an initial course toward an ill-advised and uninformed so-called "solution" to the issue. This Senate solution will fundamentally limit how physicians can negotiate with insurance companies for fair payments. It is possible this Senate approach will be enacted into law.

Fortunately, across the U.S. Capitol, key members of the U.S. House of Representatives have authored contrasting legislation based upon a sound, market-based solution to the surprise medical bill issue.

June 28, 2019

ASA | Call Your Legislator

Call Your Senator: Oppose the Surprise Medical Bill Provisions in the Lower Health Care Costs Act

49 Actions

U.S. Senate Health, Education, Labor and Pensions (HELP) Committee released draft legislation, S. 1895, "The Lower Health Care Costs Act," that includes harmful surprise medical bill provisions. ASA strongly opposes these provisions. As currently written, the proposal fundamentally reweights the health care marketplace to the benefit of insurance companies. Under the proposal created by Senators Lamar Alexander (R-TN) and Patty Murray (D-WA), the federal government would set in law an unprecedented "benchmark" or payment cap in the commercial insurance marketplace. Payments to out of network physicians and other providers would be capped at the "local median contracted commercial amount" – an amount determined by and ultimately controlled by insurance companies. We have provided talking points below to help guide your conversation with your senator:

U.S. House of Representatives
Rep. Raul Ruiz, M.D. (D-CA) – Rep. Phil Roe, M.D. (R-TN)

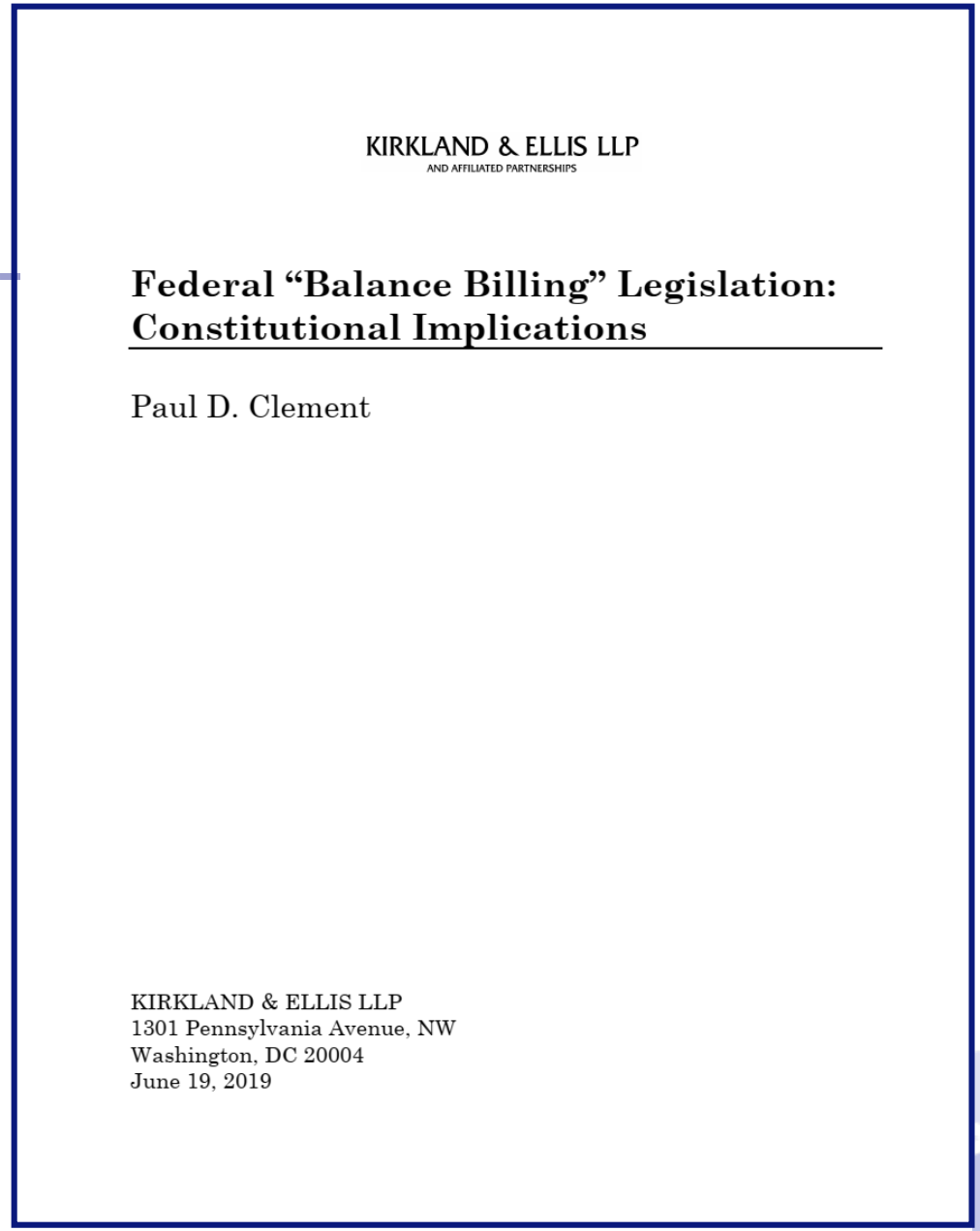
"H.R.3502, Protecting People from Surprise Medical Bills Act"

ASA-Endorsed

1. protects patients from out-of-pocket costs beyond what they would pay if the services were in-network;
2. requires insurers to initially pay the out-of-network provider a "commercially reasonable rate;" and
3. creates a fair, independent dispute resolution process to resolve payment disputes between insurers and physicians. The proposal provides that the arbiter shall take into consideration the 80 percentile of charges from an independent database in resolving the dispute.

Out of Network Payment: Legal Challenge

"In short, federal balance-billing legislation raises multiple constitutional concerns. If Congress proceeds with legislation, it should at least include safeguards that would ameliorate those concerns—namely, by ensuring that out-of-network healthcare providers will have some leverage to insist on receiving adequate payments for their services."



KIRKLAND & ELLIS LLP
AND AFFILIATED PARTNERSHIPS

Federal "Balance Billing" Legislation: Constitutional Implications

Paul D. Clement

KIRKLAND & ELLIS LLP
1301 Pennsylvania Avenue, NW
Washington, DC 20004
June 19, 2019

ASA Advocacy - *2019 Agenda*

Economic Strategic Planning Initiative

- **ASA Economic Strategic Planning Initiative**
  - All economic issues impacting the sustainability of private and academic practices
    - Medicare Payments
      - MACRA – MIPS and APMs
      - Conversion Factor Issues
      - Medicare Advantage
    - Care Delivery Models
    - Medicare for All Implications

ASA Advocacy - *2019 Agenda*

Medicare for All

- Medicare/Medicaid–Based Reforms
  - Public Option
  - Medicare for All
  - Medicare Buy-In
  - Medicaid Buy-In
  - Care Delivery Models

Rep. Pramila Jayapal (D-WA-7)
Chair, Progressive Caucus
Chair, Medicare for All Caucus
Founder, Medicare for All PAC

Caution: Federal AND State Issue

ASA Advocacy - *2019 Agenda*

Perioperative
Brain Health Initiative
American Society of **Anesthesiologists**™

- ASA urges support for the NIH and NIA in their work on this important public health issue.
- The stress of surgery and effects of anesthesia place ***older patients at risk for delirium and post-operative cognitive disorders.***
- These complications results in billions of dollars in additional health care costs.
- The National Institutes of Health (NIH), including the National Institute of Aging (NIA), are supporting efforts to address cognitive or brain function issues that may arise in older patients as a result of the surgical experience.

Lee Fleisher, M.D., Chair, ASA Brain Health Initiative

ASA Advocacy - *2019 Agenda*

Resident Physician Debt Relief

- **ASA has endorsed the H.R. 1554, the "Resident Education Deferred Interest Act" (REDI Act). The bill would allow borrowers to qualify for interest-free deferment on their loans while serving in a medical internship or residency program.**
- The cost of graduate-level medical education is substantial for physicians in training. Medical student debt can exceed $250,000.
- Physicians in residency can qualify to have their payments halted during residency through deferment or forbearance processes.
- The loans continue to accrue interest that accumulates to the overall loan balance.
- Providing debt relief allows physicians to more readily open practices in underserved areas or to enter faculty or research position.
-

Legislative Conference 2019


Rep. Kim Schrier, M.D. (D-WA)


Rep. Frank Pallone (D-NJ), Chairman
House Energy & Commerce Committee

Sen. Ted Cruz (R-TX)

Sen. Maggie Hassan (D-NH)

Rep. Andy Harris, M.D. (R-MD)

Legislative Conference

Can J Anesth/J Can Anesth
https://doi.org/10.1007/s12630-018-1111-5

SPECIAL ARTICLE

World Health Organization-World Federation of Societies of Anaesthesiologists (WHO-WFSA) International Standards for a Safe Practice of Anesthesia

Normes internationales pour une pratique sécuritaire de l'anesthésie de l'Organisation mondiale de la santé et de la Fédération mondiale des sociétés d'anesthésiologie (OMS-FMSA)

Adrian W. Gelb, MBChB, FRCPC · Wayne W. Morriss, MBChB, FANZCA · Walter Johnson, MD · Alan F. Merry, MBChB, FANZCA, FFPMANZCA, FRCA on behalf of the International Standards for a Safe Practice of Anesthesia Workgroup

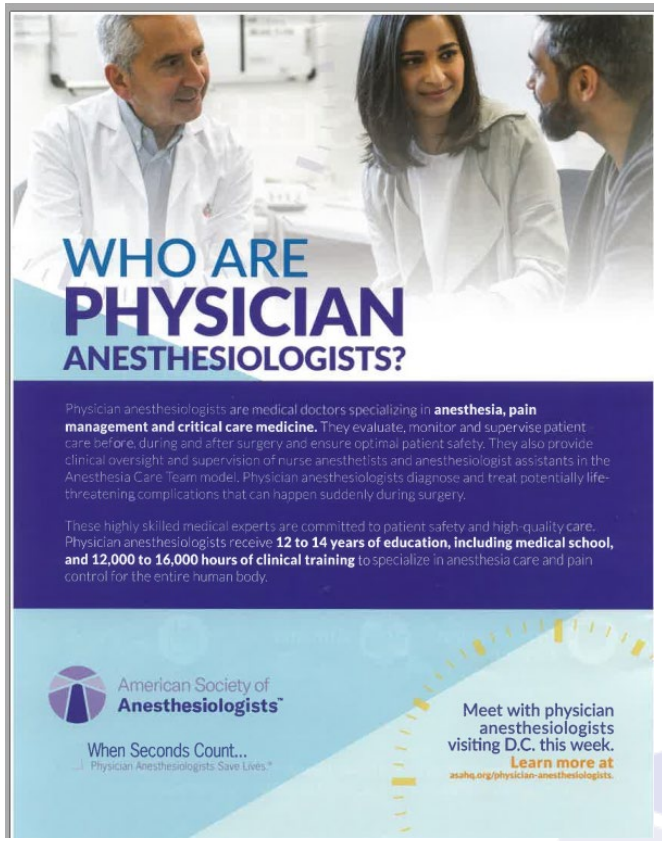
Received: 7 December 2017 / Revised: 21 February 2018 / Accepted: 22 February 2018

Professional Status

Anesthesia is a vital component of basic healthcare and requires appropriate resources. Anesthesia is inherently complex and potentially very hazardous, and its safe provision requires a high level of expertise in medical diagnosis, pharmacology, physiology, and anatomy, as well as considerable practical skill. Therefore, the WFSA views anesthesiology as a medical practice. Wherever and whenever possible, anesthesia should be provided, led, or overseen by an anesthesiologist **(HIGHLY RECOMMENDED)**. When anesthesia is provided by non-anesthesiologists, these providers should be directed and supervised by anesthesiologists, in accordance with their level of training and skill. When there are no anesthesiologists at a local level, leadership should be provided by the most qualified individual. Policies and guidelines consistent with this document should be developed at a local, regional, or national level by a team of anesthesia providers led by an anesthesiologist.

Handout

Handout



Full-Page Ad

Drug Shortages

- Drug shortages have exploded
  - Production disruptions
  - Foreign manufacturers are reluctant to ramp up production
  - New generics take a long time to get FDA approval
- Sterile injectables
  - Injectable opioids
  - Local anesthetics

- Previous efforts not permanent
  - Food and Drug Administration Safety and Innovation Act (FDASIA) of 2012
  - Food and Drug Administration (FDA), Office of Drug Shortage Efforts

Tackling Drug Shortages

- ASA and the American College of Emergency Physicians (ACEP) partnered to get Congressional sign-on letters sent to the FDA
  - House letter-107 signatories
  - Senate letter- 31 signatories

- Thereafter, Commissioner Gottlieb announced a new drug shortages task force to address the problem
  - Multiple stakeholder listening sessions followed; ASA participated
  - ASA attended the Task Force public meeting at the end of November and provided comments
  - The Task Force will submit a report to Congress in 2019

- ASA, with partners, convened a summit at the Washington, D.C. office in September 2018 to examine this issue from a new perspective: Drug Shortages as a Matter of National Security: Improving the Resilience of the Nation's Healthcare Critical Infrastructure
  - ASA shared recommendations from the Summit with the FDA Drug Shortages Task Force

Co-Convener of the Drug Shortage Summit

September 20, 2018: Drug Shortages Summit Recommendations

Drug Shortages as a Matter of National Security: Improving the Resilience of the Nation's Healthcare Critical Infrastructure

Recommendations focus on:

- Enhancing communication across the entire drug supply chain
- Streamlining regulations to incentivize increased manufacturing production
- A GAO study to examine all aspects of the drug supply chain
- Require federal government authorities with jurisdiction over national security to conduct an analysis of domestic drug and medical device manufacturing capability and capacity for critic product to assess whether a threat to national security exists
- Develop incentives for manufacturers to have contingency or redundancy production plans

Get Involved in ASA's Efforts

- ASA Drug Shortage Registry
  - On ASAHQ.org
  - Data shared with other registries, Congress and the FDA Drug Shortage Office

Make Your Voice Heard!

- Contact and educate:
  - Legislators
  - Hospital administrators
  - Surgeons and referring physicians
  - Friends and family
- Tell your When Seconds Count® story
  - Download toolkit resources from the website
  - Get involved with social media

Education Resources

American Society of Anesthesiologists™

asahq.org

Be at the top of your game with ASA Education

ACE

Challenge your knowledge of anesthesia fundamentals

- Clinical focus with many real-life scenarios
- Refreshes your memory on essential topics while keeping you updated on changing guidelines
- Choice of format: available in print or for mobile device/Web
- 60 AMA PRA Category 1 Credits™ per annual subscription (30 per issue)
- High-quality images
- Can be completed on-the-go and at your own pace
- References listed for further learning, with links to full-text Anesthesiology® articles

Be at the top of your game with ASA Education

SEE

Translating emerging anesthesia knowledge for your daily practice

- Content aggregated from approximately 30 international medical journals to streamline your learning
- Summaries of studies that can impact and improve your current practice
- 60 AMA PRA Category 1 Credits™ per annual subscription (30 per issue)
- Choice of format: available in print or for mobile device/Web
- Can be completed on-the-go and at your own pace
- References listed for further learning, with links to full-text Anesthesiology articles

ASA Simulation Products

Anesthesia **SimSTAT**
TRAUMA | ROBOTIC SURGERY | PACU | L&D | APPENDECTOMY

Anesthesia SimSTAT

- Virtual patients with unique, realistic diseases and based on physiologic models that respond appropriately to clinical interactions.
- A full complement of interactive anesthesia-related equipment, and monitors with live physiologic data and waveform tracings.
- Complete tracking of learners' actions, providing formative performance feedback, and identifying strengths, weaknesses and areas of improvement.

ASA Simulation Products

Anesthesia **SimSTAT**
TRAUMA | ROBOTIC SURGERY | PACU | L&D | APPENDECTOMY

Five Anesthesia SimSTAT courses

- Trauma, Appendectomy, Robotic Surgery, PACU, and L&D.
  - PACU – *Coming next month*
  - L&D – *Coming July 2019*

- Each course awards 5 MOCA 2.0® Part IV points and 5 AMA PRA Category 1 Credits™ (ABA approved as Patient-Safety CME)

- ABA diplomates can complete all five courses to earn five years' worth of MOCA 2.0® Part IV credit (25 points)

ASA Simulation Education Network

- Simulation Education Network (SEN) is a network of ASA-endorsed simulation programs held in centers across the country to deliver training to anesthesiologists.
  - 54 centers around the country, including University of Virginia, University of Maryland, Duke University, and Wake Forest University.
- Courses are designed to realistically recreate challenging clinical cases to allow participants to problem-solve in a manner that is similar to actual clinical experience.
- ABA diplomates can earn 25 MOCA 2.0® Part IV points (five years' worth) by attending a simulation for MOCA course at an ASA SEN-endorsed Simulation Center.

Scientific & Clinical Information

American Society of
Anesthesiologists™

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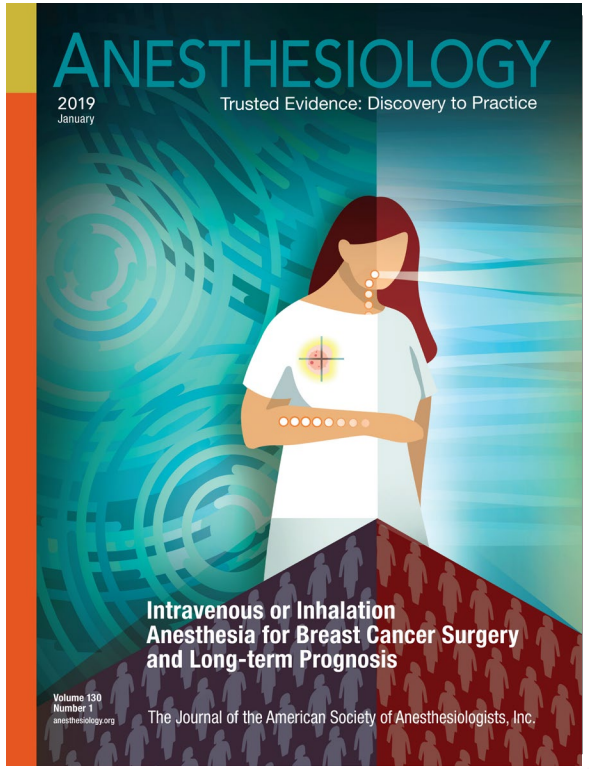
Anesthesiology®

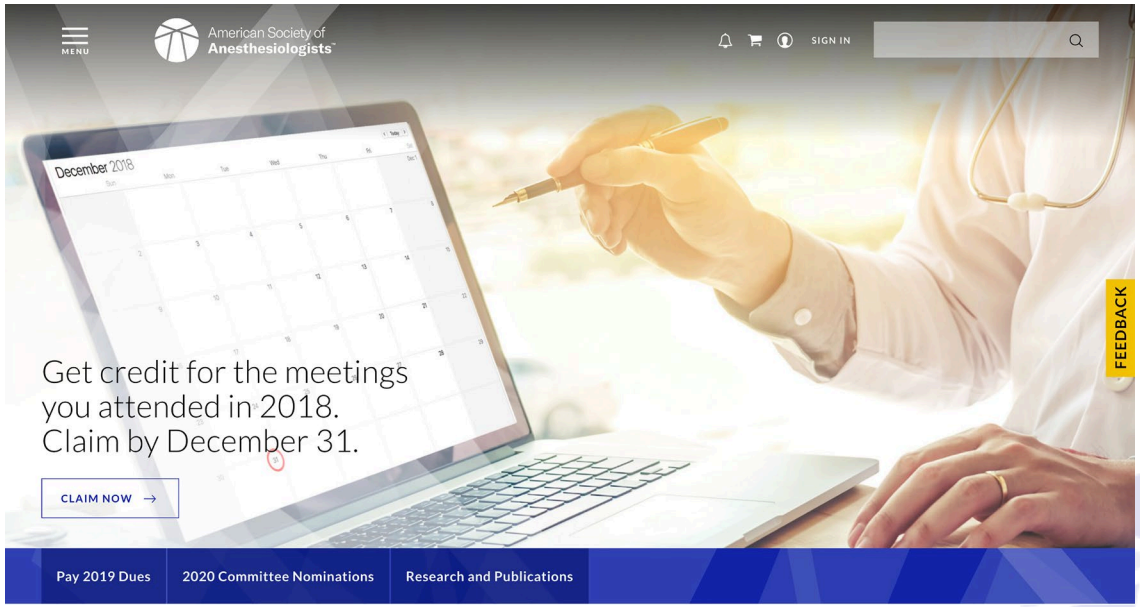
- The official peer-reviewed journal of the ASA
- The premier peer-reviewed journal in the specialty
  - Impact Factor of 6.424 in 2018
  - #1 in anesthesia and pain category
  - Highest Impact Factor in Journal's history
  - Impact Factor not be-all-and-end-all measure of success, but as Editor-in-Chief Dr. Evan Kharasch says, "if you are going to be ranked, it is nice to be #1."
- The #1 most-used ASA member benefit, with a 73% usage rate
- ***Trusted Evidence: Discovery to Practice***

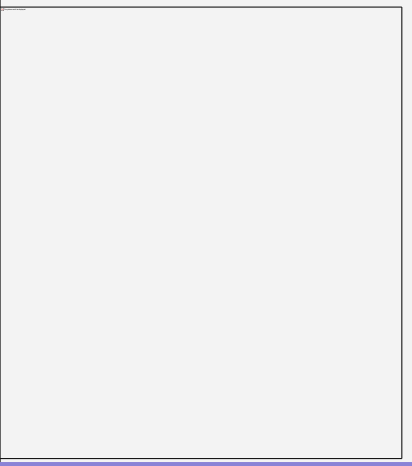


Other Clinical Resources

Among the top 10 most-used ASA member resources:

- ASA Monitor
- Standards, Guidelines, Statements and Practice Parameters
- Online CME courses
- Live meetings
- Coming soon: Clinical Decision Support Tools





KEYNOTE SPEAKER

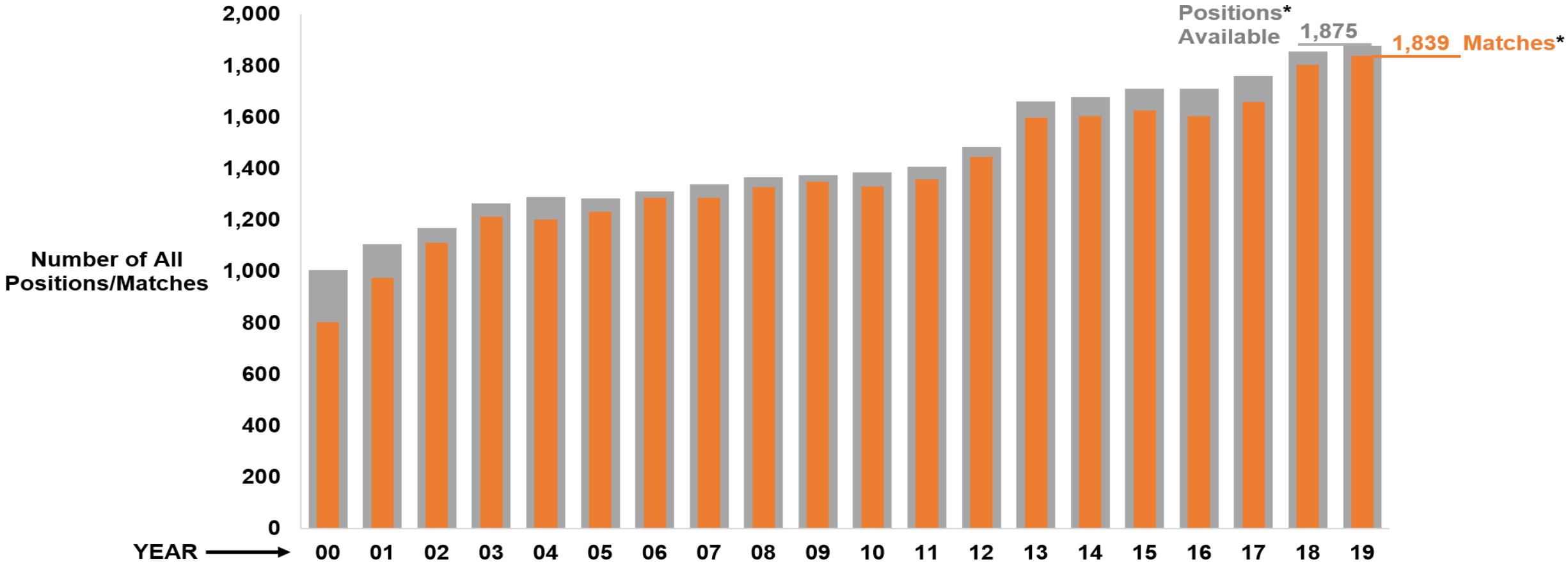
Abraham Verghese, M.D., MACP

ASA's Research Resources

- Center for Anesthesia Workforce Studies (CAWS)
  - Four national datasets to estimate supply
  - Resource center: Trends in supply, compensation and education
  - Anesthesia-related physician group practices
  - Oversight by the AH CAWR[1]
- Peer-reviewed articles
  - Anesthesia opt-out policy (4)
  - Physician group concentration
  - Billing modifier QZ
  - Perioperative Surgical Home
  - Anesthesia Care Team
- ASA 2018 ANESTHESIA ALMANAC

[1]ASA established the Ad Hoc Committee on Anesthesia Workforce Research (AH CAWR) in Jan 2018 to identify, prioritize and review workforce-related projects undertaken by ASA's CAWS.

Figure 1: Anesthesiology Positions Available Compared to Total Anesthesiology Candidates Matched*, 2000-2019

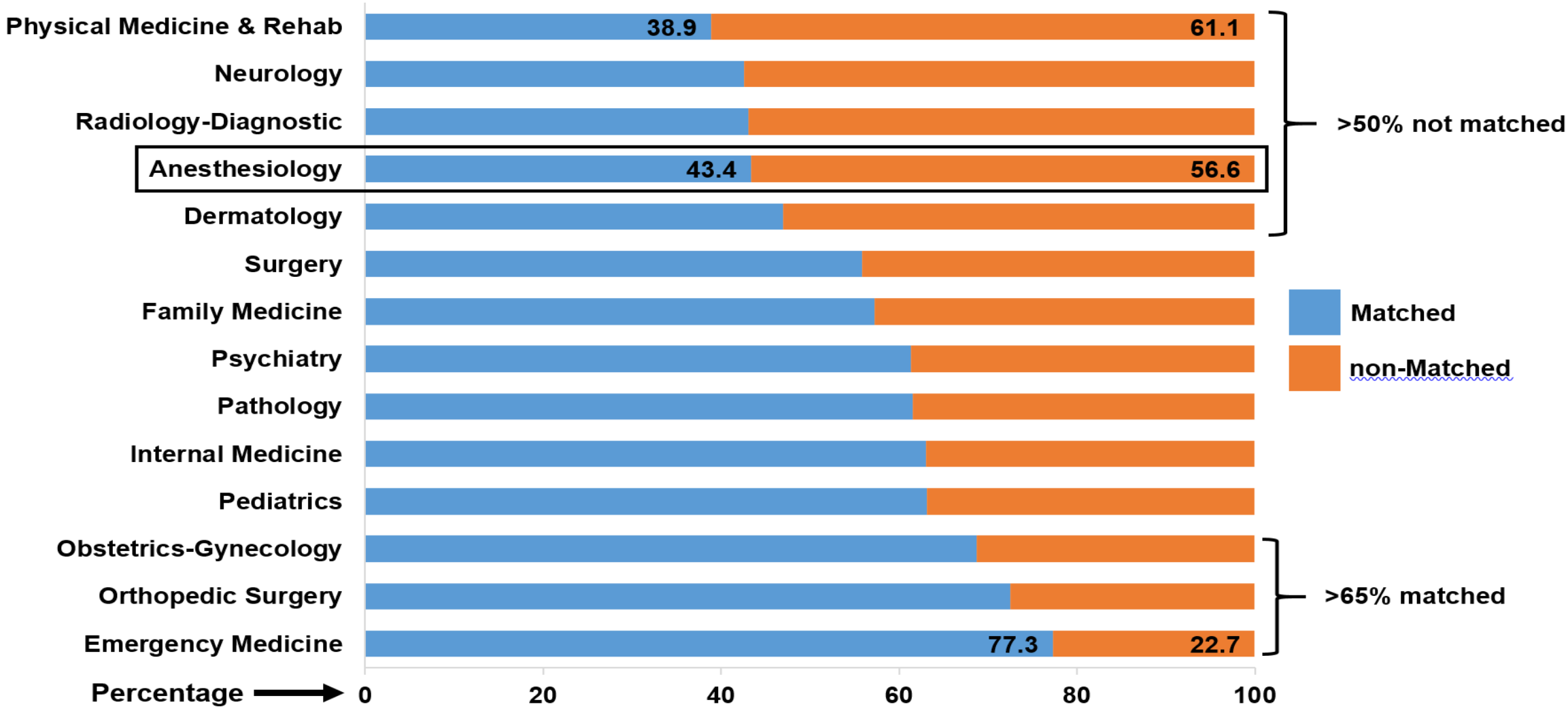


Source: 20 years of reports (2000 to 2019) from: National Resident Matching Program, Results and Data: Main Residency Match®. National Resident Matching Program, Washington, D.C.

Represents NRMP designated specialty programs in: Anesthesiology, Emergency Medicine-Anesthesiology, Medicine-Anesthesiology and Pediatrics-Anesthesiology.

*Positions and matches include PGY-1, PGY-2, and from 2014 to 2019, Physician (R) programs.

Figure 1: Percentage of Matched versus non-Matched Applicants* in Selected Specialties, 2019



Source: 2019 National Resident Matching Program, Results and Data: Main Residency Match®. National Resident Matching Program, Washington, D.C.

*If applicable, applicants and matches include PGY-1, PGY-2, and Physician (R) programs.

Professional & Career Resources

American Society of
Anesthesiologists™

asahq.org

Professional Resources

- ASA continues to grow its roster of benefits, products and services aimed at improving your professional performance
  - Practice Management resources
  - Quality & Registry products
  - Group Practice Solutions

USP General Chapter <797> *Pharmaceutical Compounding – Sterile Preparations*

Reprinted from USP 42—NF 37

1.2 Administration

For the purposes of this chapter, administration means the direct application of a sterile medication to a single patient by injecting, infusing, or otherwise providing a sterile medication in its final form. Administration of medication is out of the scope of this chapter. Standard precautions such as the Centers for Disease Control and Prevention's (CDC's) safe injection practices apply to administration.

1.3 Immediate Use CSPs

Compounding of CSPs for direct and immediate administration to a patient is not subject to the requirements for Category 1 or Category 2 CSPs when all of the following are met:

1. Aseptic processes are followed and written procedures are in place to minimize the potential for contact with nonsterile surfaces, introduction of particulate matter or biological fluids, and mix-ups with other conventionally manufactured products or CSPs.
2. The preparation is performed in accordance with evidence-based information for physical and chemical compatibility of the drugs (e.g., FDA-approved labeling, stability studies).
3. The preparation involves not more than 3 different sterile products.
4. Any unused starting component from a single-dose container must be discarded after preparation for the individual patient is complete. Single-dose containers must not be used for more than 1 patient.
5. Administration begins within 4 hours following the start of preparation. If administration has not begun within 4 hours following the start of preparation, it must be promptly, appropriately, and safely discarded.
6. Unless administered by the person who prepared it or administration is witnessed by the preparer, the CSP must be labeled with the names and amounts of all active ingredients, the name or initials of the person who prepared the preparation, and the exact 4-hour time period within which administration must begin.

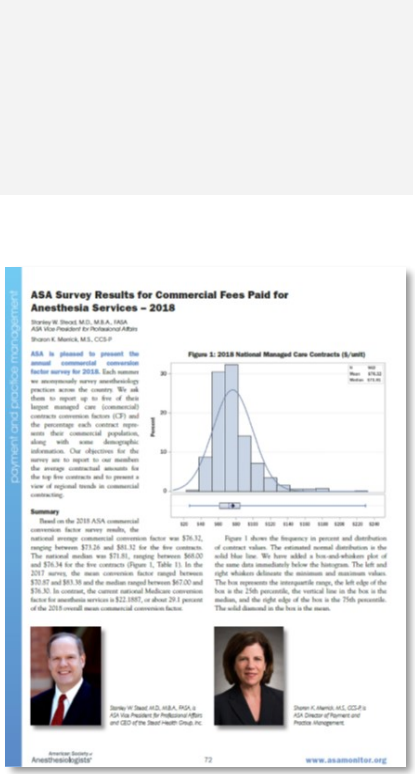
1.4 Preparation Per Approved Labeling

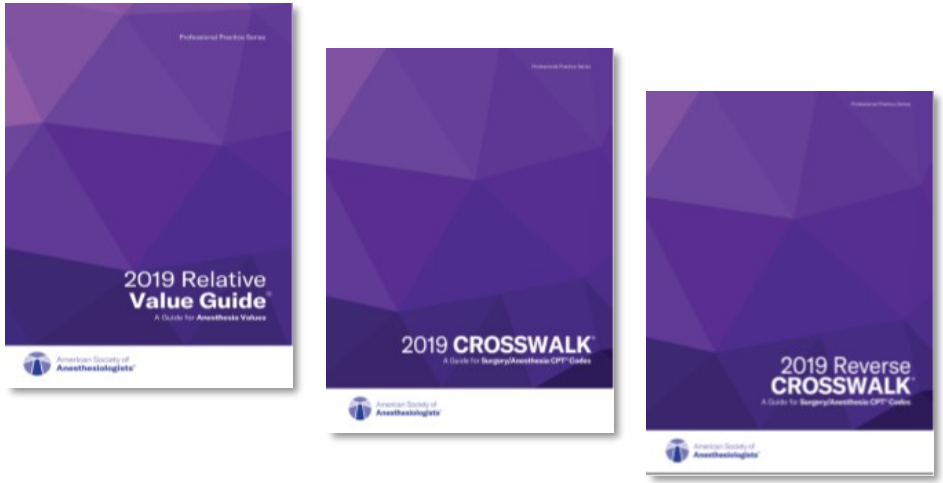
Compounding does not include mixing, reconstituting, or other such acts that are performed in accordance with directions contained in approved labeling provided by the product's manufacturer and other manufacturer directions consistent with that labeling [21 USC 353a (e)].

Preparing a conventionally manufactured sterile product in accordance with the directions in the manufacturer's approved labeling is out of scope of this chapter only if:

1. The product is prepared as a single dose for an individual patient, and
2. The approved labeling includes information for the diluent, the resultant strength, the container closure system, and storage time.

Payment and Practice Management: *Tools and Resources*





American Society of Anesthesiologists™

Timely Topics

Payment and Practice Management

Career Resources

- Additionally, ASA is ramping up its portfolio of benefits, products and services to help you reach your career goals
  - New non-clinical “soft skills” training modules for resident programs and others
  - ASA-ACHE Physician Leadership Development Collaborative
    - Partnership with ACHE
    - ASA courses count toward FACHE if member is also in ACHE
  - Advanced cohort added to our Executive Physician Leadership Program with Northwestern University’s Kellogg School of Management
    - 4-day program for physician leaders who have completed the introductory program or who are already in senior executive positions
    - Launches in 2019
  - ASA adding wellness resources to ASAHQ.org
  - New Career Center on ASAHQ.org

Anesthesiology Career Center

Leadership Development Pathway

The Leadership Development Pathway provides anesthesiologists an opportunity to expand their knowledge in focused areas of leadership development. The pathway provides guidance on specific competencies needed for each phase of leadership development from inspiring to transformational leader.

Select a section of the pathway to learn more about the recommended competencies and resources.

Section Focus

Aspiring Leaders - This section provides, physicians beginning their leadership journey, essentials of effective leadership with the understanding that awareness of self is required to be an effective leader.

Questions?
M.Peterson@asahq.org

World Youth Sailing Championships, Corpus Christi, Texas, July 2018

Q & A

Thank you!!

American Society of
Anesthesiologists™

asahq.org

Learning Objectives

Anesthesiologists Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics

James Rathmell, MD

Shalini Shah, MD

Santhanam Suresh, MD

Kevin Vorenkamp, MD, FASA

At the completion of this session, the participants will be able to:

- Summarize key concepts and practices in managing pain and preventing opioid misuse, abuse and addiction
- Assess patients with pain to inform treatment planning, monitor treatment response, ensure safe use when opioid analgesics are appropriate and detect opioid abuse or addiction
- Develop individualized pain treatment plans, including nonpharmacologic and/or pharmacologic (non-opioid and opioid analgesics) as appropriate
- Identify strategies to safely and effectively initiate, modify, and discontinue use of opioid analgesics
- Manage patients with opioid use disorder, or identify patients requiring referral to an addiction specialist

Dr. Suresh, Dr. Vorenkemp have no financial relationships to disclose. Dr. Rathmell disclosed a financial interest with the American Board of Anesthesiology. Dr. Shah disclosed a financial interest with Pfizer. Neither will discuss products which he had a role in developing. Neither will include a discussion of off label uses of commercial products and/or unapproved investigational use of any product. This lecture is sponsored by the American Society of Anesthesiologists and supported by an educational grant from The France Foundation.

1

Presenting Faculty

- James Rathmell, MD
- Shalini Shah, MD
- Santhanam Suresh, MD
- Kevin Vorenkamp, MD

2

Faculty Disclosures

- Shalini Shah, MD, has disclosed funded research with Pfizer
- Santhanam Suresh, MD, has disclosed consulting fees with Pacira
- James Rathmell, MD, and Kevin Vorenkamp, MD, have reported no relevant financial relationships with commercial interests

3

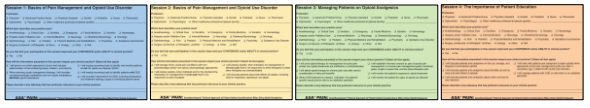
Learning Objectives

1. Summarize key concepts and practices in managing pain and preventing opioid misuse, abuse, and addiction
2. Assess patients with pain to inform treatment planning, monitor treatment response, ensure safe use when opioid analgesics are appropriate, and detect opioid abuse or addiction
3. Develop individualized pain treatment plans, including nonpharmacologic and/or pharmacologic (non-opioid and opioid analgesics) as appropriate
4. Identify strategies to safely and effectively initiate, modify, and discontinue use of opioid analgesics
5. Manage patients with opioid use disorder, or identify patients requiring referral to a specialist in addiction medicine

4

Exit Tickets

At the end of each section, you will be asked to complete one of the multicolored exit tickets located in your packet of handouts.



Once you complete an exit ticket, please pass it to your **right** and it will be collected.

5

How to Use Your Phone to Answer Polling Questions

FIRST start a new text message to this number: **22333**

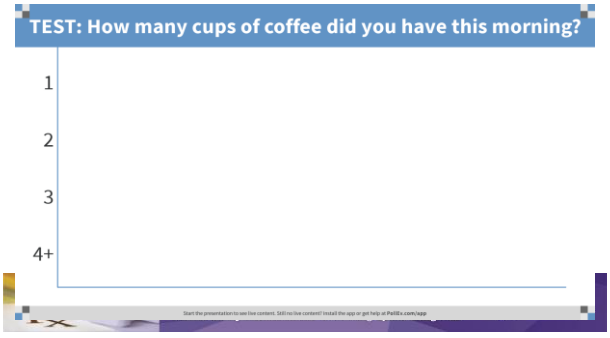
THEN type a message that says **TFF3** and hit **Send**

You're ready to go!
Simply text A, B, C…to answer when you see a question slide pop up

6

Let's test it!

7



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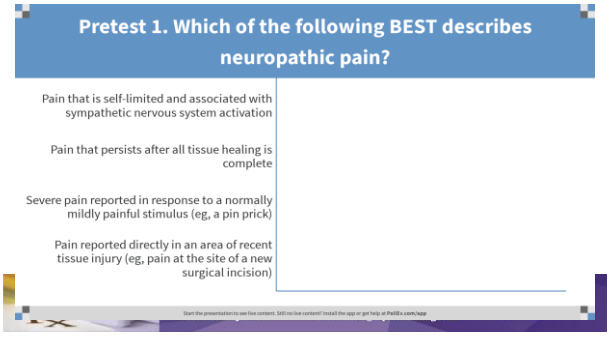

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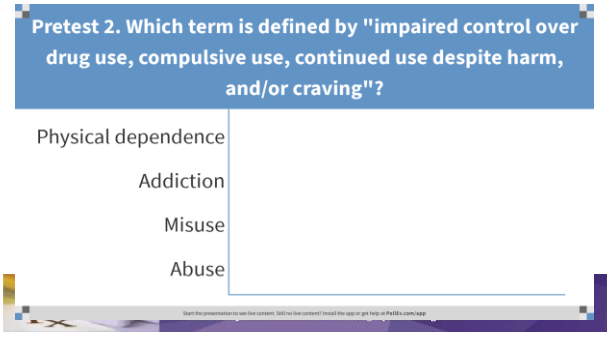


11

Scope of the Problem

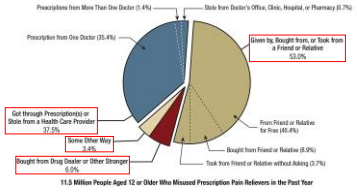
- NCHS 2017
  - >70,000 drug overdose deaths
  - 47,600 of the deaths involved opioids—a 45% increase from 2016
  - On average,130 deaths per day from overdoses involving opioids
- NSDUH 2016
  - ~11.5 million Americans aged ≥12 years misused prescription pain relievers, most often hydroxycodone, oxycodone, and codeine products
  - ~2.1 million Americans aged ≥12 years had OUD

NCHS = National Center for Health Statistics; NSDUH = National Survey on Drug Use and Health.

Scholl L et al. *MMWR.* 67(5152);1419–1427.
SAMHSA. Key Substance Use and Mental Health Indicators in the United States: Results from the 2016 National Survey on Drug Use and Health. Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2017. HHS publication SMA 17-5044, NSDUH Series H-52.

12

Source of Prescription Pain Relievers in the Past Year: 2016



SAMHSA. *Key Substance Use and Mental Health Indicators in the United States:* Results from the 2016 National Survey on Drug Use and Health. Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2017. HHS publication SMA 17-5044, NSDUH Series H-52.

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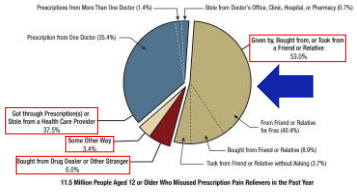

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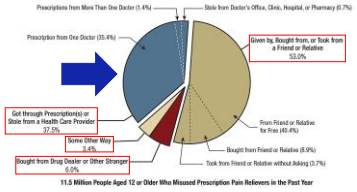


SAMHSA. *Key Substance Use and Mental Health Indicators in the United States:* Results from the 2016 National Survey on Drug Use and Health. Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2017. HHS publication SMA 17-5044, NSDUH Series H-52.

Why Comprehensive Pain Education Is Needed

- Understanding risks associated with opioids provides opportunities to consider all pain management options
  - Nonpharmacologic
  - Pharmacologic: non-opioid and opioid
    - Consider opioids only when non-opioid options are inadequate and benefits outweigh risks
- Knowledge of the risks of opioid misuse and abuse can inform development of patient counseling and other strategies to reduce risks

FDA Education Blueprint for Health Care Providers Involved in the Treatment and Monitoring of Patients with Pain. https://www.accessdata.fda.gov/drugsatfda_docs/rems/Opioid_analgesic_2018_09_18_FDA_Blueprint.pdf. Published September 2018.

What is pain?

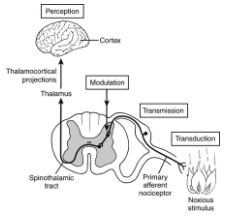
An objective, quantifiable physiologic response

A subjective, quantifiable physiologic response

A normal protective, physiologic response

An abnormal, pathophysiologic response

Biological Significance of Pain



Ferrante FM, VadeBoncouer TR, eds. *Postoperative Pain Management.* New York, NY: Churchill Livingstone; 1993.

Acute vs Chronic Pain

- Acute pain
  - Provoked by a specific disease or injury
  - Serves a useful biologic purpose
  - Associated with skeletal muscle spasm and sympathetic nervous system activation
  - Self-limited
- Chronic pain
  - Persistent pain that may or may not have a known cause
  - Unhelpful; a disease state

Rushton AB, Evans DW, Middlebrook N, et al. *BMJ Open.* 2018;8(4):e017876. doi:10.1136/bmjopen-2017-017876
Grichnik KP, Ferrante FM. *Mt Sinai J Med.* 1991;58(3)217-220.

19

Which of the following BEST describes nociceptive pain?

- Pain reported in response to a normally non-painful stimulus (eg, light touch)
- Pain that persists after all tissue healing is complete
- Severe pain reported in response to a normally mildly painful stimulus (eg, pin prick)
- Pain reported directly in an area of recent tissue injury (eg, pain at the site of a new surgical incision)

20

Nociceptive vs Neuropathic Pain

- Nociceptive pain
  - Adaptive response resulting from suprathreshold stimulation of nociceptors, which are specialized for detection of potentially harmful mechanical, thermal or chemical situations
  - Immediate physical response is reflexive, protective
  - Persists while the injurious agent remains or until healing occurs
  - Prolonged input can cause central hypersensitization and spontaneous or amplified pain

SAMHSA. *Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders.* Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2012. HHS publication (SMA) 12-4671.

21

Nociceptive vs Neuropathic Pain

- Neuropathic pain
  - Results from lesion in or dysfunction of the sensory nervous system
  - Triggered by
    - Nerve compression, injury or severance
    - Disorders affecting the neural axis (eg, metabolic diseases, infections, autoimmune disorders, vascular diseases, neoplasia)

SAMHSA. *Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders.* Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2012. HHS publication (SMA) 12-4671.

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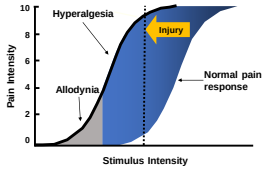
22

Neuropathic Pain



- ***Allodynia*:** pain resulting from normally painless stimuli
- ***Hyperalgesia:*** *heightened* sense of pain to noxious stimuli

McQuay H. Pain physiology and pharmacology. In: Sinatra R, De Leon-Cassasola O, Viscusi E, Ginsberg B, eds. *Acute Pain Management.* Cambridge, MA: Cambridge University Press; 2009:1-144.

ASA® PAIN:
Anesthesiologists Tailored Approach to
Patient Safety Considerations When Using Opioid Analgesics
American Society of Anesthesiologists

23

The initial assessment of a patient in pain should include all EXCEPT which of the following?

- Screening tools to evaluate the known risk factors for opioid use disorder (OUD) or abuse
- Queries of state prescription drug monitoring programs (PDMPs)
- Screening tools to evaluate for major psychiatric disorders
- Functional assessment scales

24

Elements of an Initial Assessment of the Patient With Pain

- Patient history
- Physical examination
- Pain assessment
  - Underlying cause
  - Location
  - Pain level/intensity
  - Chronic pain – chronic neuropathic pain
- Query to state PDMP*
- Functional assessment
- Psychological/social evaluation
- Status/intent regarding pregnancy or breastfeeding
- Diagnostic studies when needed
- Screening for risk of OUD

*Currently 49 states have operational PDMPs (only Missouri does not). In Missouri, St Louis County offers a PDMP that include participation from other jurisdictions. At last report 84% of the state population was covered by the PDMP (https://www.stlouisco.com/Health-and-Wellness/PDMP)

Tools for Assessing Pain Level

Tool	Strengths	Weaknesses
Faces Pain Scale	• Easy to use • Usable in people with mild-to-moderate cognitive impairment • Translates across cultures and languages	• Visual impairment may affect accuracy or completion • May measure pain affect, not just pain intensity
Numeric Rating Scale (NRS)	• Easy to administer and score • Can measure small changes in pain intensity • Sensitive to changes in chronic pain • Oral or written administration • Translates across cultures and languages	• Difficult to administer to patients with cognitive impairment because of difficulty translating pain into numbers
Visual Analog Scale (VAS)	• Easy to use but must be presented carefully • Precise • Sensitive to ethnic differences • Easily translates across cultures and languages • Horizontal may work better than vertical ("thermometer") orientation	• Visual impairment may affect accuracy • Can be time consuming to score, unless mechanical or computerized • Low completion rate in patients with cognitive impairment • Difficult to use in patients with cognitive impairments • Cannot be administered by phone or email • Subject to measurement error
Verbal Rating Scale/ Graphic Rating Scale	• Easy to use • Oral or written administration • High completion rate in patients with cognitive impairment • Sensitive to change and validated for use with chronic pain • Correlates strongly with other tools	• Less sensitive than NRS or VAS

SAMHSA. *Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders.* Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2012. HHS publication (SMA) 12-4671.

Tools for Assessing Several Dimensions of Pain

Tool	Strengths	Weaknesses
Brief Pain Inventory (BPI)	• Short form better for clinical practice • Fairly easy to use • Useful in different cultures • Translated into and validated in several languages	• Not easily used with patients with cognitive impairments
McGill Pain Questionnaire	• Short form easier to administer • Extensively studied	• Measures pain affect • Not appropriate for patients with cognitive impairment • Translation complicated • Meaning of pain descriptors may vary across racial and ethnic groups

SAMHSA. *Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders.* Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2012. HHS publication (SMA) 12-4671.

Tools for Assessing Function

Tool	Purpose	Resource
Katz Basic Activities of Daily Living Scale	Rates independence by assessing six areas of daily activities	University of Texas School of Nursing at Houston https://clas.uiowa.edu/socialwork/sites/class.uiowa.edu.socialwork/files/NursingHomeResource/documents/Katz%20ADL_LawtonIADL.pdf
Pain Disability Index	Measures chronic pain and chronic pain interference in daily life	Pain Balance https://www.med.umich.edu/1info/FHP/practiceguides/pain/detpdi.pdf
Roland-Morris Disability Questionnaire	Measures perceived disability from low back pain	National Primary Care Research and Development Centre, University of Manchester, UK http://www.rmdq.org
WOMAC Index	Assesses pain, stiffness and physical function in patients with osteoarthritis	http://www.womac.org

SAMHSA. *Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders.* Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2012. HHS publication (SMA) 12-4671.

Definition of Addiction

- Primary, chronic, neurobiologic disease with genetic, psychosocial and environmental factors influencing its development and manifestations
- Typically characterized by one or more of the "3 C's"
  - Impaired ***control*** over drug use or compulsive use
  - ***Continued use*** despite harm
  - ***Craving***

Savage SR, Joranson DE, Covington EC, et al. *J Pain Symptom Manage.* 2003;26(1):655-667.

Which of the following is the DSM-5 definition for OUD?

A problematic pattern of opioid use leading to clinically significant impairment or distress

A problematic pattern of opioid use leading to harm to self or others

A problematic pattern of opioid use characterized by daily opioid use

A problematic pattern of opioid use characterized by intermittent symptoms of withdrawal

Opioid Use Disorder

- **DSM-5 definition**: a problematic pattern of opioid use leading to clinically significant impairment or distress
- Previously classified as opioid abuse or opioid dependence (DSM-IV)
- Also referred to as *opioid addiction*

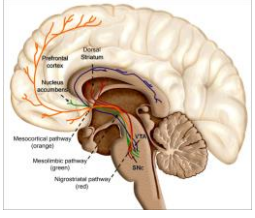
Center for Disease Control. Module 5: Assessing and Addressing Opioid Use Disorder (OUD). CDC website. https://www.cdc.gov/drugoverdose/training/oud/accessible/index.html.
American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Washington, DC: American Psychiatric Publishing; 2013.

OUD is a chronic, relapsing disease characterized by all EXCEPT which of the following?

- Activation in the dopaminergic mesocortical, mesolimbic, and nigrostriatal systems
- Short-term regulatory changes at the mRNA or protein/peptide level in major neurotransmitter and neuropeptide systems
- Long-term regulatory changes at the mRNA or protein/peptide level in major neurotransmitter and neuropeptide systems
- Loss of neurotransmitters that mediate the ability to resist temptation

Neurobiology of OUD: Initial Changes

- Heroin and prescription opioids act primarily as μ-opioid receptor agonists with a relatively short duration of action
- Activation of the dopaminergic mesocortical, mesolimbic, and nigrostriatal systems appears to be a common neurobiological consequence of exposure to drugs of abuse



Changes After Initial Exposure

- Short- and long-term regulatory changes occur in major neurotransmitter and neuropeptide systems at the mRNA or protein level
- Long-term regulatory changes persist even after prolonged drug-free periods and may underlie the chronic relapsing nature of addictive diseases

Kreek MJ, Levran O, Reed B. *J Clin Invest.* 2012;122(10):3387-3393.

Changes After Initial Exposure (Continued)

- Chronic exposure to drugs of abuse upregulates the K opioid receptor-dynorphin system
  - Thought to be the basis of aversion, dysphoria/anhedonia, and depression-like or anxiety-like neuropsychiatric states
  - May mediate negative reinforcement aspects of withdrawal
  - May exacerbate chronic relapsing nature of addictive diseases

Kreek MJ, Levran O, Reed B. *J Clin Invest.* 2012;122(10):3387-3393.

Risk of Developing OUD

Risk	Patient Characteristics
Low	• No history of substance abuse • Minimal, if any, risk factors
Medium	• History of non-opioid substance use disorder • Family history of substance abuse • Personal or family history of mental illness • History of nonadherence to scheduled medication therapy • Poorly characterized pain problem • History of injection-related diseases • History of multiple unexplained medical events (eg, trauma, burns)
High	• Active substance use disorder • History of prescription opioid abuse • Patient previously assigned to medium risk exhibiting aberrant behaviors

SAMHSA. Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders. Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA); 2012. HHS publication (SMA) 12-4671.

Tools for Screening for OUD Risk

- Opioid Risk Tool (ORT)
- Screener and Opioid Assessment for Patients with Pain–Revised (SOAPP-R)
- CRAFFT Screening Interview (for adolescents)

Webster LR, Webster RM. *Pain Med.* 2005;6(6):432-442.
Butler SF, Fernandez K, Benoit C, et al. *J Pain.* 2008;9(4):360-372.
Knight JR, Sherritt L, Shrier LA, et al. *Arch Pediatr Adolesc Med.* 2002;156(6):607-614.

Opioid Risk Tool (ORT)

- Can be administered and scored in < 1 minute
- Validated in both male and female patients (but not in non-pain populations)

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Scoring ≤ 3: low risk 4 – 7: moderate risk ≥ 8: high risk

Webster LR, Webster RM. *Pain Med.* 2005;6(6):432-442.

Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)

- Validated in chronic pain patients
- < 10 minutes to complete
- Simple to score

Please answer the questions below using this scale:
0 = Never 1 = Seldom 2 = Sometimes 3 = Often 4 = Very Often

1. How often do you have mood swings?
2. How often have you felt a need for higher doses of medication to treat your pain?
3. How often have you felt impatient with your doctors?
4. How often have you felt that things are just too overwhelming that you can't handle them?
5. How often is there tension in the home?
6. How often have you counted pain pills to see how many are remaining?
7. How often have you been concerned that people will judge you for taking pain medication?
8. How often do you feel bored?
9. How often have you taken more pain medication than you were supposed to?
10. How often have you worried about being left alone?
11. How often have you felt a craving for medication?
12. How often have others expressed concern over your use of medication?
13. How often have any of your close friends had a problem with alcohol or drugs?
14. How often have others told you that you have a bad temper?
15. How often have you felt consumed by the need to get pain medication?
16. How often have you run out of pain medication early?
17. How often have others kept you from getting what you deserve?
18. How often, in your lifetime, have you had legal problems or been arrested?
19. How often have you attended an Alcoholics Anonymous or Narcotics Anonymous meeting?
20. How often have you been in an argument that was so out of control that someone got hurt?
21. How often have you been sexually abused?
22. How often have others suggested that you have a drug or alcohol problem?
23. How often have you had to borrow pain medications from your family or friends?
24. How often have you been treated for an alcohol or drug problem?

A score of ≥18 suggests the patient is at high risk for problems with chronic opioid therapy

Butler SF, Fernandez K, Benoit C, et al. *J Pain.* 2008;9(4):360-372.

CRAFFT Screening Interview

- Developed specifically for use among adolescent medical patients[1]
- Validated in patients ages 14-18 years seeking routine health care[2] (and in other adolescent populations)[2]
- Most thoroughly studied substance abuse screen for adolescents[3]

CRAFFT Screening Interview

Part A
During the PAST 12 MONTHS, did you:
1. Drink any alcohol (more than a few sips)? (Do not count sips of alcohol taken during family or religious events.) ☐ Yes ☐ No
2. Smoke any marijuana or hashish? ☐ Yes ☐ No
3. Use anything else to get high? ("Anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff") ☐ Yes ☐ No

For clinic use only: Did the patient answer "yes" to any questions in Part A?
- If yes, ask all 6 questions in part B below, then score.
- If no, ask question 1 in part B below, then stop and score.

Part B
1. Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?
2. Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?
3. Do you ever use alcohol or drugs while you are by yourself, or ALONE?
4. Do you ever FORGET things you did while using alcohol or drugs?
5. Do your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use?
6. Have you ever gotten into TROUBLE while you were using alcohol or drugs?

Scoring: Each "yes" response in Part B scores 1 point. A total score of ≥ 2 is considered a positive screen

1.Butler SF, Fernandez K, Benoit C, et al. *J Pain.* 2008;9(4):360-372.
2.Harris SK, Knight JR, Van Hook S, et al. *Subst Abuse.* 2016;27(1):197-203.
3.Dhalla S, Zumbo BD, Poole G. *Curr Drug Abuse Rev.* 2011;4(1):57-64.

Diagnosing OUD: DSM-5 Criteria

Check all that apply	Criteria (within a 12-month period)
☐	Opioids are often taken in larger amounts or over a longer period than was intended
☐	There is a persistent desire or unsuccessful efforts to cut down or control opioid use
☐	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid or recover from its effects
☐	Craving or a strong desire or urge to use opioids.
☐	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school or home
☐	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
☐	Important social, occupational or recreational activities are given up or reduced because of opioid use
☐	Recurrent opioid use in situations in which it is physically hazardous
☐	Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
☐	Exhibits tolerance*
☐	Exhibits withdrawal*
Total checked: _____	If OUD is diagnosed (≥ 2 criteria met), assess severity as mild (2-3 criteria met), moderate (4-5 criteria met) or severe (≥ 6 criteria met).

*Not considered to be met for individuals taking opioids solely under appropriate medical supervision.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington, DC: American Psychiatric Publishing; 2013.

Diagnosing OUD: Definitions

Tolerance
- A need for markedly increased amounts of opioids to achieve intoxication or desired effect

OR

- A markedly diminished effect with continued use of the same amount of an opioid

Withdrawal
- Criterion A: Either of the following: 1) Cessation of (or reduction in) opioid use that has been heavy and prolonged (several weeks or longer), or 2) administration of an opioid antagonist after a period of opioid use
- Criterion B: Three (or more) of the following, developing within minutes to several days after Criterion A: dysphoric mood; nausea or vomiting; muscle aches; lacrimation or rhinorrhea; pupillary dilation, piloerection or sweating; diarrhea; yawning; fever; or insomnia

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington, DC: American Psychiatric Publishing; 2013.

Current Opioid Misuse Measure (COMM)

Answer each question as honestly as possible. There are no right or wrong answers.
Respond to each question as : 0 = never, 1 = seldom; 2 = sometimes; 3 = often; 4 = very often

In the past 30 days…

1. How often have you had trouble with thinking clearly or had memory problems?
2. How often do people complain that you are not completing necessary tasks? (ie, doing things that need to be done, such as going to class, work or appointments)
3. How often have you had to go to someone other than your prescribing physician to get sufficient pain relief from medications? (ie, another doctor, the emergency room, friends, street sources)
4. How often have you taken your medications differently from how they are prescribed?
5. How often have you seriously thought about hurting yourself?
6. How much of your time was spent thinking about opioid medications (having enough, taking them, dosing schedule, etc.)?
7. How often have you been in an argument?
8. How often have you had trouble controlling your anger (eg, road rage, screaming, etc.)?
9. How often have you needed to take pain medications belonging to someone else?
10. How often have you been worried about how you're handling your medications?
11. How often have others been worried about how you're handling your medications?
12. How often have you had to make an emergency phone call or show up at the clinic without an appointment?
13. How often have you gotten angry with people?
14. How often have you had to take more of your medication than prescribed?
15. How often have you borrowed pain medication from someone else?
16. How often have you used your pain medicine for symptoms other than for pain (eg, to help you sleep, improve your mood, or relieve stress)?
17. How often have you had to visit the emergency room?

Butler SF, Budman SH, Fernandez KC, et al. *Pain*. 2007;130(1-2):144-156.

A score of 9 or above is a positive indicator of opioid misuse.

43

When selecting among treatment options for opioid use disorder, all of the following should be considered EXCEPT?

- Patient's preferences
- Past treatment history
- Treatment setting
- Patient's occupation

44

Interventions for OUD

- Methadone, buprenorphine, naltrexone
- Setting is as important as drug selection: office-based opioid treatment vs. inpatient opioid treatment program
- Office-based opioid treatment (medication provided on a prescribed weekly or monthly basis) is limited to buprenorphine
- Psychosocial intervention is a critical component of opioid treatment programs
- Referral to a specialist in addiction medicine may be necessary

SAMHSA. Medications for Opioid Use Disorder: For Healthcare and Addiction Professionals, Policymakers, Patients, and Families [Internet]. SAMHSA/CSAT Treatment Improvement Protocols.

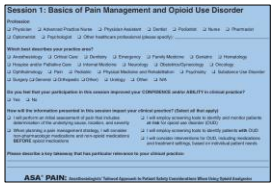
45

Conclusions: Key Takeaways

- Pain is a normal, physiologic, protective response to acute injury
- Pain may be acute or chronic, nociceptive and/or neuropathic
- Initial assessment of a patient in pain should include determination of the underlying cause and assessment of pain location and severity
- Consideration of opioids for the treatment of pain should take into account risk for developing OUD
  - Screening tools to identify and monitor patients at risk for OUD are available and simple to use
- OUD is a disease with a well-identified underlying neurobiology
- Management of OUD must be tailored to each patient's needs, with careful selection of setting and medication for withdrawal management
- Multiple factors, including patient history, preferences and compliance, should be considered when deciding whether to refer to an addiction specialist

46

Please complete your exit ticket…


Session 1: Basics of Pain Management and Opioid Use Disorder

Profession

Which best describes your practice area?

Do you feel that your participation in this session improved your CONFIDENCE and/or ABILITY in clinical practice?

How will the information presented in this session impact your clinical practice? (Select all that apply)

Please describe a key takeaway that has particular relevance to your clinical practice:

ASA® PAIN: Anesthesiologists' Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics

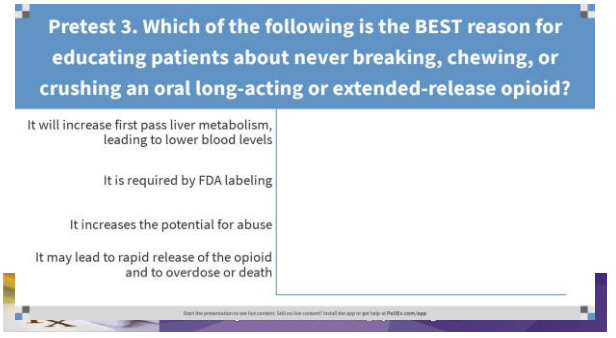
…and pass it to the RIGHT

47

Break – see you in 30-min!

48

49



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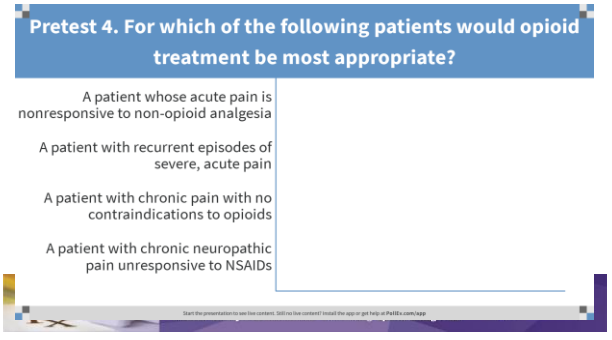

51

Steps in Creating an Effective Pain Treatment Plan

- Establish goals of treatment
  - Discuss degree of pain relief
  - Discuss functional improvement
- Plan for periodic review of treatment goals
- Consider nonpharmacologic interventions
- Consider pharmacologic interventions, when appropriate
- When prescribing opioids, establish prescriber and patient responsibilities and use of patient provider agreements (PPAs)

Opioid Patient Prescriber Agreement (PPA). FDA website. https://www.fda.gov/downloads/Drugs/DrugSafety/SafeUseInitiative/UCM613086.pdf.

52

Choosing Treatments
Nonpharmacologic Interventions

- **Psychological interventions**
  - Preoperative education/expectation setting
  - Guided imagery
  - Progressive relaxation
- **Physical modalities**
  - Physical therapy/occupational therapy
  - Ice/heat/elevation/positioning
- **Surgical interventions**
- **Medical device interventions**
  - TENS
  - Perineural electrical stimulation devices
- **Complementary/alternative interventions**
  - Acupuncture
  - Massage
  - Reiki

53

Choosing Treatments: Non-opioid Analgesics*

- Acetaminophen (APAP)
- Nonsteroidal anti-inflammatory drugs (NSAIDs), eg, aspirin, celecoxib, ibuprofen, indomethacin, ketorolac, naproxen
- Drugs for treating neuropathic pain
  - Anticonvulsants, eg, carbamazepine, gabapentin, lamotrigine, valproate
  - Antidepressants, eg, tricyclics (eg, imipramine, nortryptaline) and SNRIs (eg, venloxifine, duloxetine)

*For formulations, indications, contraindications, adverse events, and drug interactions please consult individual agents on DailyMed: https://dailymed.nlm.nih.gov/dailymed/.

54

Choosing Treatments: Non-opioid Analgesics*

- Oral corticosteroids: prednisone, dexamethasone
- Topical agents
  - NSAIDs, eg, diclofenac
  - Corticosteroids, eg, betamethasone, hydrocortisone, triamcinolone
  - Local anesthetics/nerve block agents, eg, benzocaine, lidocaine, bupivicaine

*For formulations, indications, contraindications, adverse events, and drug interactions please consult individual agents on DailyMed: https://dailymed.nlm.nih.gov/dailymed/.

When Should Opioid Treatment Be Considered?

- For acute pain or trauma if non-opioid analgesics are insufficient, ineffective, or contraindicated
- For chronic pain if all other pharmacologic and nonpharmacologic approaches have failed or there are medical contraindications to non-opioid analgesics
- For pain related to cancer or other advanced illnesses in those near end-of-life

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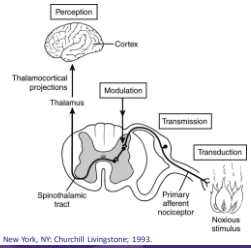
Opioid Analgesics: Mechanisms in Pain Relief

- Bind μ-opioid receptors in the periaqueductal gray region and the rostroventral medulla of the brain
- Increase descending inhibitory signals that modulate incoming pain signals



Ferrante FM, VadeBoncouer TR, eds. *Postoperative Pain Management*. New York, NY: Churchill Livingstone; 1993.

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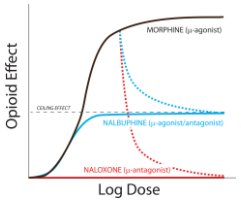
Comparative Efficacy



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Available Opioid Medications (Examples)

- Buprenorphine
  - Buccal film (Belbuca)
  - Transdermal system (Butrans)
- Fentanyl transdermal system* (Duragesic)
- Hydrocodone bitartrate
  - ER tablets (Hysingla†)
  - ER capsules (Zohydro)
- Hydromorphone HCl
  - ER tablets (Exalgo)
- Methadone HCl
  - Tablets (Dolophine)
  - Oral concentrate*
  - Oral solution*
- Morphine sulfate
  - CR tablets (MS Contin)
  - ER tablets* (Arymo†, MorphaBond†)
  - ER capsules* (Avinza, Kadian)
- Morphine sulfate/naltrexone (Embeda†)
- Oxycodone
  - CR tablets (OxyContin†)*
  - ER capsules (Xtampza†)
- Oxymorphone HCl ER tablets (Opana)
- Tramadol,* tramadol ER* (Ultram, Ultram ER, Conzip)

*Available as generic.
†Abuse-deterrent formulation (ADF)

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Opioid Drug Interactions

Drug or Substance	Possible Effect	Examples
CNS suppressants	• Potentiation of opioid-induced sedation and respiratory depression	• Alcohol • Benzodiazepines
Monoamine oxidase inhibitors	• Increase in respiratory depression • Serotonin syndrome	• Selegiline • Isocarboxazid
Diuretics	• Reduction in diuretic efficacy via induction of antidiuretic hormone	• Furosemide • Hydrochlorothizide • Spironolactone
Cytochrome P450 inhibitors/inducers	• Increase or decrease in systemic opioid levels	• Antiretroviral agents • Clarithromycin • Amiodarone • Carbamazepine
Selective serotonin reuptake inhibitors (SSRIs)	• Suppress CYP-2D6 metabolism of prodrug opioids (eg, hydrocodone), rendering them less effective in reducing pain	• Citalopram • Fluoxetine • Paroxetine • Sertraline

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Long-Acting Opioids: Special Concerns

- Greater risk than short-acting opioids for overdose and abuse
- Oral tablets/capsules should not be broken, crushed, chewed or snorted; patches should not be cut or torn prior to use
  - May lead to rapid release and overdose/death
- If patient cannot swallow a capsule whole, refer to PI to determine if the contents can be sprinkled on applesauce or given via feeding tube

Faculty Discussion

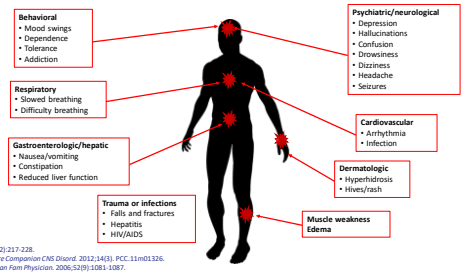
- Are abuse deterrent opioid formulations (ADFs) really abuse deterrent?

Opioid Analgesics: General Precautions[1,2]

- Common side effects of opioids: sedation, dizziness, nausea, vomiting, constipation, respiratory depression, physical dependence, tolerance, withdrawal
- Risks of misuse, abuse, opioid use disorder (OUD), overdose, death even at prescribed doses
- Consult prescription drug monitoring program (PDMP) *before* deciding to prescribe opioids
- Consider OUD criteria (DSM-5) and concepts of *abuse* vs. *misuse*
- Consider concepts of *tolerance* vs *physiological dependence* vs *OUD* (addiction)
- Prolonged use/OUD has a direct relationship to duration of initial prescription[3]

1. Dowell D, Haegerich TM, Chou R. *MMWR Recomm Rep.* 2016;65(1):1-49.
2. Manchikanti L, Kaye AM, Knezevic NN, et al. *Pain Physician.* 2017;20(2S):S3-S92.
3. Brat GA, Agniel D, Beam A, et al. *BMJ.* 2018;360:j5790.

Long-term Medical Effects of Opioid Use



1. Tetrault JM, Fiellin DA. *Drugs.* 2012;72(2):217-228.
2. Baldini A, Von Korff M, Lin EH. *Prim Care Companion CNS Disord.* 2012;14(3). PCC.11m01326.
3. Kahan M, Srivasava A, Wilson L, et al. *Can Fam Physician.* 2006;52(9):1081-1087.

Faculty Discussion

Opioid Pain Management – Considerations for Special Populations

- Possible pregnancy/pregnancy/post-partum
- Patients with renal or hepatic impairment
- Children and adolescents
- Older adults
- Patients with sleep disorders
- Patients with psychiatric disorders
- Opioid-tolerant patients

Before Initiating Opioid Therapy

- Perform a comprehensive assessment and document it
- Establish an appropriate physical diagnosis (and obtain psychological diagnosis, if available). Consider imaging, physical diagnosis and psychological status, as appropriate, to corroborate subjective complaints
- Establish medical necessity based on average moderate to severe pain (≥ 4 on a scale of 0 - 10) and/or disability

Before Initiating Opioid Therapy

- Check the PDMP
- Consider baseline and periodic urine drug testing (UDT)
- Establish treatment goals including pain relief and improvement in function
- Educate patients and caregiver on efficacy and risks/adverse events)
- Obtain a robust opioid agreement to be followed by all parties (clinician-patient-caregiver)

Initiating Opioid Treatment

- Start with short-acting drugs
  - Short course (3 - 7 days) for acute pain
- Recommend long-acting or high-dose opioids only in specific circumstances with severe intractable pain
- Prescribe the lowest effective dose
  - Low dose: ≤ 40 MME
  - Moderate dose: 41 - 90 MME
  - High dose: > 91 MME
- Titrate gradually to achieve best efficacy with few or no side effects
- Evaluate benefits and harms within 1 - 4 weeks of opioid initiation or dose escalation
- Re-evaluate benefits and harms every 3 months
  - If benefits do not outweigh harms, optimize other pain therapies and taper/ discontinue

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Key Safety Strategies

- Dosing instructions (with daily maximum)
- Concurrent drug or alcohol use
- Age-related dose reductions
- Naloxone products for home use
- Safe storage: inaccessible by children, friends, family members
- Intervention strategies for accidental poisoning vs. overdose (intentional harm vs. recreational use)
- Proper disposal

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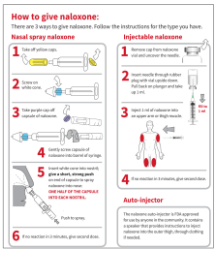
Naloxone Guidance

- Clinicians should co-prescribe naloxone to *individuals at risk for opioid overdose*, including but not limited to:
  - *Those on relatively high doses of opioids*
  - *Those who take other medications that enhance opioid complications*
  - *Those with underlying health conditions*



HHS recommends prescribing or co-prescribing naloxone to patients at high risk for an opioid overdose [news release]. HHS Press Office; December 19, 2018. https://www.hhs.gov/about/news/2018/12/19/hhs-recommends-prescribing-or-co-prescribing-naloxone-to-patients-at-high-risk-for-an-opioid-overdose.html.

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DSM-5 Criteria for OUD

Check all that apply	Criteria (within a 12-month period)
☐	Opioids are often taken in larger amounts or over a longer period than was intended
☐	There is a persistent desire or unsuccessful efforts to cut down or control opioid use
☐	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid or recover from its effects
☐	Craving, a strong desire or urge to use opioids.
☐	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school or home
☐	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
☐	Important social, occupational or recreational activities are given up or reduced because of opioid use
☐	Recurrent opioid use in situations in which it is physically hazardous
☐	Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
☐	Exhibits tolerance*
☐	Exhibits withdrawal*
Total checked:	If OUD is diagnosed (≥ 2 criteria met), assess severity as mild (2-3 criteria met), moderate (4-5 criteria met) or severe (≥ 6 criteria met).

*Not considered to be met for individuals taking opioids solely under appropriate medical supervision.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington, DC: American Psychiatric Publishing; 2013.

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Based on the FDA's **Risk Evaluation and Mitigation Strategies (REMS)**

ASA® PAIN:

Anesthesiologists' Tailored Approach to **Patient Safety Considerations** When Using **Opioid Analgesics**

Creating the Pain Treatment Plan: Case Review

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PBL Instructions

2 min timer

Case 1: Elise

- A 26-year-old female presents in the ED with a distal left radius fracture after a fall. The fracture is nondisplaced and a cast is placed.
- What is your pain treatment plan?

2 min timer

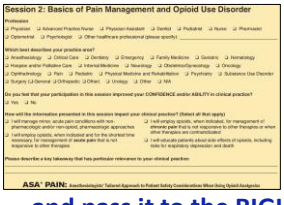
Case 2: Ron

- 56-year-old male, hospitalized with rib fractures sustained in a motor vehicle accident.
- What is your pain treatment plan?

Conclusions / Key Takeaways

- Many minor, acute pain conditions can be successfully managed with nonpharmacologic and/or non-opioid pharmacologic approaches
- Opioids remain useful tools when acute pain is not responsive to other therapies, but should be used when indicated for the shortest period of time necessary
- Opioids can be used to manage chronic pain that is not responsive to other therapies or when other therapies are contraindicated
- All opioids have side effects that range from constipation to respiratory depression and death
- Increased risk for long-term use of opioids is directly related to the duration of the initial prescription

Please complete your exit ticket…



Session 2: Basics of Pain Management and Opioid Use Disorder

…and pass it to the RIGHT

Based on the FDA's **Risk Evaluation and Mitigation Strategies (REMS)**

ASA® PAIN:

Anesthesiologists' Tailored Approach to **Patient Safety Considerations** When Using **Opioid Analgesics**

Managing Patients on Opioid Analgesics

Shalini Shah, MD

American Society of Anesthesiologists™

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Pretest 5. When switching from another opioid to methadone, by how much should the calculated equianalgesic dose of methadone be reduced?

75-90%

50-75%

25-50%

0% (conversion tables account for incomplete cross-tolerance)

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79

Pretest 6. Which of the following is NOT one of the CDC's four recommended steps in tapering opioids?

Go Slow: For many patients a decrease of 10% of the original dose per week is reasonable

Consult: Coordinate with specialists and treatment experts as needed

Support: Make sure patients receive appropriate psychosocial support

Discourage: Advise patients not to deviate from the tapering regimen due to increased overdose risk

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80

Case 1: Carla – Acute Pain

- 26-year-old female with left radius fracture after a fall
- Initial treatment plan
  - Goal: relief of acute pain + sufficient pain control to permit sleep and normal ADL
  - Treatment selection: IV or oral ketorolac in the ED, ketorolac 10 mg PO QID for five days followed by naproxen 375 mg PO BID PRN
  - Review efficacy during orthopedic surgery office visit in 2 days for cast evaluation
  - Elevate the extremity, consider using intermittent ice for the first 48 hours
  - Provide educational material about expected healing process following fracture to reduce anxiety

81

Case 1: Carla – Current Status

- 2 days post-fracture
- Patient feedback
  - Moderate to severe pain (7/10) despite ongoing naproxen treatment
  - Difficulty participating in physical therapy
- Physical exam shows swelling, local pain

82

What is the best next step?

Ensure that the cast is not too tight

Recommend adjustments to physical therapy

Switch to another NSAID

Start a brief (7-day or less) trial of oxycodone + APAP

Other

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83

Acute Pain: When Opioid Treatment Is Appropriate (*and When It Is Not*)

- Medical necessity of acute pain treatment
  - Allows the patient to meet functional goals of care
  - Facilitates recovery
- Physical examination consistent with limitation of movement due to pain inadequately controlled with non-opioid options
- Failure or contraindication of non-opioid (eg, regional block, epidural, etc.) and nonpharmacologic options
- **General principle**: Listen to your patient, follow the examination and exhaust all practical non-opioid approaches first

84

Guidance for Use of Opioids for Acute Pain

- Check the prescription drug monitoring program (PDMP)
- Discuss benefits and risks of opioid use with the patient
- Choose from immediate-release opioids
  - Morphine immediate-release
  - Codeine
  - Oxycodone +/- APAP
  - Hydrocodone + APAP
  - Hydromorphone
- Prescribe the lowest effective dose, with no greater quantity than needed for the expected duration of severe pain requiring opioids
- ≤ 3 days is sufficient; > 7 days will rarely be needed

Guideline for Prescribing Opioids for chronic Pain. CDC website. https://www.cdc.gov/drugoverdose/pdf/guidelines_factsheet-a.pdf

Case 2: Mr. Coles – Chronic Pain

- Mr. Coles is a 55-year-old male referred by his PCP for chronic rectal pain secondary to Crohn's disease and complicated by several painful surgeries.
- He reports moderate-to-severe (7/10) pain, inability to work effectively as a data manager and pain that awakens him from sleep several times a night. He says he is desperate for any relief.
- He has tried multiple pain medications over the past year, including naproxen, acetaminophen and gabapentin, without success. His gastroenterologist has maximized his Crohn's disease medications.

Case 2: Mr. Coles – Chronic Pain (continued)

- Physical examination reveals he is unable to stay in a seated position for even a short time, with constant grimacing.
- As the encounter progresses, the patient becomes tearful and distraught. He reports significant anxiety due to constant pain and poor quality of life.
- The PDMP reveals a remote history of a short course of tramadol, likely postsurgical.

Case 2: Mr. Coles – Considering Opioids for Chronic Pain

- Assessment of the patient's pain, function and quality of life prior to prescribing opioids
- Assess baseline risk of opioid misuse (eg, using SOAPP, ORT or other screening tools)
- Determine if potential benefits of opioid analgesics outweigh potential risks (side effects, misuse, dependence/addiction)

Opioid Risk Tool (ORT)

- Can be administered and scored in < 1 minute
- Validated in both male and female patients (but not in non-pain populations)

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Scoring ≤ 3: low risk 4 – 7: moderate risk ≥ 8: high risk

Webster LR, Webster RM. *Pain Med.* 2005;6(6):432-442.

ORT: Mr. Coles' Score = 1

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Scoring ≤ 3: low risk 4 – 7: moderate risk ≥ 8: high risk

Webster LR, Webster RM. *Pain Med.* 2005;6(6):432-442.

After a detailed conversation with the patient about the risks and benefits of opioid therapy, which of the following would be the MOST appropriate next step?

- Attempt to convince the patient that opioids have no role in his type of pain
- Refer to a pain psychologist for further risk stratification
- Offer a short-acting opioid trial for one month
- Offer a long-acting opioid trial for three months
- Agree to start short-term opioid therapy but not on the first visit

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91

Faculty Discussion

- After a detailed conversation with the patient about the risks and benefits of opioid therapy, which would be the MOST appropriate next step?

92

Case 2: Mr. Coles – Steps in Initiating Opioid Treatment

- **Establish goals of treatment**
  - Analgesia
  - Function (concrete goal)
  - Quality of life
- **Discuss opioid risks**
  - Physical dependence
  - Toxicity/adverse events
  - Overdose and addiction
- **Reach mutual agreement regarding opioid therapy**
  - Opioid Patient-Provider Agreement (PPA)/informed consent
  - Adherence to clinic policies and procedures
  - Urine drug testing
  - Storing opioids safely
  - Plan for discontinuation—why/when/how
- **Select opioid**
  - IR or ER/LA?
  - Naltrexone formulation or not?
  - Abuse-deterrent formulation?
  - Combine with a non-opioid analgesic?
- **Consider dose/dose frequency**
  - As-needed vs. 24-hr coverage
  - Safe initial dose
- **Titrate**

93

Universal Precautions in Chronic Pain Management

Step 1. Assess Risk	Step 2. Select Agent	Step 3. Dialogue with Patient	Step 4. Monitor Patients
Assess patient's risk for aberrant behaviors relating to an opioid prescription (ie, signs of misuse, abuse or diversion) • Consider using the ORT or the SOAPP-R **Assess the patient for psychological disorders,** which may increase risks of opioid therapy • Consider using the Patient Health Questionnaire 2 (PHQ-2) to assess depression **Review your state's PDMP** (if available) to document patient's history of prescriptions for controlled substances **Conduct a baseline urine drug test** to assess for the presence of prescribed or illicit substances	**Consider the patient's general condition, medical status and prior opioid experience** **After deciding on an agent, consider an abuse-deterrent formulation** of that agent **Consult labelling** for the selected medication	**Discuss treatment expectations,** including potential benefits and risks of therapy (informed consent) **Review written treatment agreement,** explaining the patient's rights and responsibilities with respect to the opioid prescription • Obtain patient's signature on the agreement	**Regularly assess the "4 A's"** at follow-up • **Analgesia:** Is the patient's pain better controlled? – Consider using the BPI, ID, PAIN or D.I.R.E. Score • **Activity:** Is the patient better able to function? – Consider using the BPI • **Adverse effects:** Does the patient report any sedation, respiratory depression, constipation, nausea or other side effects? • **Aberrant behavior:** Are there any signs the patient is misusing, abusing or diverting the prescription? – Review patient's medication use and adherence to treatment agreement – Recheck the state PDMP – Consider repeat UDT – Consider using a screening instrument (patient questionnaire)
Document Each Step			

Adapted from Stanos S, Brodsky M, Argoff C, et al. *Postgrad Med.* 2016;128(5):502-515.

94

Case 2 (Chronic Pain: Mr. Coles Follow-up)

- Mr. Coles is in the office for a regularly scheduled follow-up.
- He states that he has been tolerating short-acting opioid therapy (oxycodone 5mg TID) well for the last 6 months and reports that his pain is a "5/10."
- However, for the last 2 months, he has been requesting early refills.
- He also reports significant stressors at work requiring more frequent use of his pain medication.
- The PDMP demonstrates no suspicious activity.

95

Which of the following would you say is the MOST likely cause of Mr. Coles' aberrant behavior?

- Inadequate analgesia
- Opioid use disorder
- Tolerance
- Diversion
- Self-treatment of emotional aspects of pain

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Faculty Discussion

- What is/are the likely reason[s] for Mr. Coles' aberrant behavior?

Management of Worsening Pain

Before changing the regimen

- Determine whether there is a change in the underlying condition
- Check adherence using the PDMP and questioning patient about their pattern of opioid use
- Screen for signs of OUD

DSM-5 Criteria for OUD

Check all that apply	Criteria (within a 12-month period)
☐	Opioids are often taken in larger amounts or over a longer period than was intended
☐	There is a persistent desire or unsuccessful efforts to cut down or control opioid use
☐	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects
☐	Craving, or a strong desire or urge to use opioids.
☐	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home
☐	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
☐	Important social, occupational, or recreational activities are given up or reduced because of opioid use
☐	Recurrent opioid use in situations in which it is physically hazardous
☐	Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
☐	Exhibits tolerance*
☐	Exhibits withdrawal*

Total checked: _____
If OUD is diagnosed (≥ 2 criteria met), assess severity as mild (2-3 criteria met), moderate (4-5 criteria met) or severe (≥ 6 criteria met).

*Not considered to be met for individuals taking opioids solely under appropriate medical supervision.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington, DC: American Psychiatric Publishing; 2013.

DSM-5 Criteria for OUD: Mr. Coles

Check all that apply	Criteria (within a 12-month period)
x	Opioids are often taken in larger amounts or over a longer period than was intended
x	There is a persistent desire or unsuccessful efforts to cut down or control opioid use
x	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects
☐	Craving, or a strong desire or urge to use opioids.
x	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home
☐	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
☐	Important social, occupational, or recreational activities are given up or reduced because of opioid use
☐	Recurrent opioid use in situations in which it is physically hazardous
☐	Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
☐	Exhibits tolerance*
☐	Exhibits withdrawal*

Total checked: 4
If OUD is diagnosed (≥ 2 criteria met), assess severity as mild (2-3 criteria met), moderate (4-5 criteria met) or severe (≥ 6 criteria met).

*Not considered to be met for individuals taking opioids solely under appropriate medical supervision.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Washington, DC: American Psychiatric Publishing; 2013.

Management of Worsening Pain (Continued)

- Consider switching medications
  - Consider opioid-induced hyperalgesia
  - Remember there is incomplete cross-tolerance when switching to another opioid
  - Consider use (and limitations) of conversion and equianalgesic dosing tables

Faculty Discussion

- When might you consider switching medications?

Switching Opioid Treatment: Equianalgesic Dosing

Drug	Equianalgesic Doses (mg)	
	Parenteral	Oral
Morphine	10	30
Buprenorphine	0.3	0.4 (sl)
Codeine	100	200
Fentanyl	0.1	NA
Hydrocodone	NA	30
Hydromorphone	1.5	7.5
Meperidine	100	300
Oxycodone	10*	20
Oxymorphone	1	10
Tramadol	100*	120

*Not available in the US

5-Step Conversion Chart Process

1. Globally assess the patient's pain complaint.
2. Determine the total daily dose of current long- and short-acting opioids.
3. Decide which opioid analgesic will be used as the new agent, then refer to established conversion tables to determine the new dose.
4. Individualize the dose based on patient assessment information gathered in step 1.
5. Continually reassess patient for 7–14 days after the initial new dose.

MacPherson EL. Demystifying Opioid Conversion Calculations: *A Guide for Effective Dosing.* Bethesda, MD: American Society of Health System Pharmacists; 2010.

Equianalgesic Dosing and Conversion Tables: Limitations

- Multiple versions
- Online calculators, eg, https://opioidcalculator.practicalpainmanagement.com
- High variability
- Starting point for drug rotation
- Use with caution
- Consult drug PIs

Choosing the Dose of the New Opioid

Calculate equianalgesic dose of new opioid from EDT

Reduce calculated equianalgesic dose
- Generally: 25–50% reduction
- Methadone: 75–90% reduction
- Use clinical judgment

~50% reduction if patient
- Receives a high dose of current opioid
- Elderly or medically frail

~25% reduction if patient
- Is staying on current opioid but switching to a different administration route

Fine PG, Portenoy RK, et al. *J Pain Symptom Manage.* 2009;38(3):418-425.

Case 2: Mr. Coles – Follow-up Visit

- After improvement following oxycodone dose escalation (increase from 5 mg TID to 10 mg TID) two months ago, Mr. Coles presents for an early follow-up visit.
- He states he was recently seen in an urgent care facility for worsening rectal pain. He says he went there because he ran out of medications early, because the pain was unbearable.
- He describes his pain as a "constant 9/10" despite the increased dose.
- He has also added neuropathic agents at their highest recommended dose but says that did not improve the pain.

Case 2: Mr. Coles – When to Discontinue Opioids

- Have a frank discussion about the aberrant opioid use
- Discuss treatment goals
  - Pain relief or more pills?
- Discuss the lack of benefit despite increased opioid dose
- Outline your intent to discontinue opioid therapy
  - Determine strategies for tapering by mutual cooperation and level of comfort
  - Clarify that you are not discharging him but will be using non-opioid for pain control in the future
  - Reassure him that you will continue to manage his pain without opioids

When to Taper Opioids

- Patient requests dosage reduction
- Patient does not have clinically meaningful improvement in pain and function
- Patient is on dosages ≥ 50 MME/day without benefit or opioids are combined with benzodiazepines
- Patient shows signs of substance use disorder
- Patient experiences overdose or other serious adverse event
- Patient shows early warning signs for overdose risk, such as confusion, sedation or slurred speech

Pocket Guide: Tapering Opioids for Chronic Pain. CDC website. https://www.cdc.gov/drugoverdose/pdf/clinical_pocket_guide_tapering-a.pdf

How to Taper Opioids*

- **Go Slow**: A decrease of 10% of the original dose per week is a reasonable starting point
  - Patients who have taken opioids for a long time may need to taper more slowly
  - Discuss the increased risk for overdose if patients quickly return to a previously prescribed higher dose
- **Consult:** Coordinate with specialists and treatment experts, as needed
  - Use extra caution during pregnancy due to possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal
- **Support:** Make sure patients receive appropriate psychosocial support
  - If needed, work with mental health providers, arrange for treatment of opioid use disorder, offer naloxone for overdose prevention
  - Watch for signs of anxiety, depression and opioid use disorder during the taper; offer support or referral, as needed
- **Encourage:** Let patients know that most people have improved function without worse pain after tapering opioids; some even have improved pain after a taper (though pain might briefly get worse at first). Tell patients "I know you can do this."

*Tapering plans should be individualized and should minimize symptoms of opioid withdrawal while maximizing pain treatment with nonpharmacologic therapies and nonopioid medications.

Pocket Guide: Tapering Opioids for Chronic Pain. CDC website. https://www.cdc.gov/drugoverdose/pdf/clinical_pocket_guide_tapering-a.pdf

Case 3: James H. – "Legacy" Patient

- James presents to establish care with your practice through a referral from his PCP, who no longer wishes to prescribe opioids in his practice due to new state regulations.
- Chief complaint is chronic low back pain.
- History includes multiple spinal surgeries
- Recent surgical consultation suggests nothing further can be done surgically

Case 3: James H. – "Legacy" Patient (Continu

- He describes his pain as 8/10 globally, stating that "everything hurts, all the time." He says that his opioid regimen is "the only thing that allows me to function" and that he has been on opioids for many years.
- Current regimen:
  - Transdermal fentanyl 75 mcg q 48h
  - Oxycodone 15 mg QID
  - Gabapentin 600 mg TID
  - Alprazolam 1 mg BID
  - Trazadone 100 mg QHS for sleep

What is the MOST appropriate next step in your treatment of this patient?

- Refuse to accept him as a patient
- Maintain his current opioid dose
- Taper opioids to FDA dosing recommendations
- Develop a treatment plan in collaboration with the patient and referring provider
- Refer to an addiction medicine specialist

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What to Do with "Legacy" Patients

- Listen to the patient's entire story first to learn what they hope to gain from your care. Often (but not always) their hope is that you will maintain their current treatment plan.
- Determine if the treatment is effective.
- Focus the conversation on risks, known systemic and endocrine side effects, known pharmacology, and lack of true efficacy. Explain how our understanding of the risks associated with chronic opioid therapy have changed in recent years.

What to Do with "Legacy" Patients

- When the treatment is ineffective or inappropriate, explain that their current regimen is not an approach you either use or recommend, and that you are not willing to continue, along with the reasons.
- Outline your recommended short-term and medium-term treatment approach.
- Remember that referral by the prescribing PCP does not mean you have to endorse the therapy or take over prescription-writing. The original prescriber is obligated to maintain or safely taper their patient off opioids if they choose to no longer prescribe them.

Managing Opioid Use Disorder

- Detox with withdrawal management
  - Inpatient vs. outpatient
- Moderate-to-severe OUD: consider inpatient stabilization and involvement of a specialist in addiction medicine[1]
- Severe OUD: consider medication assisted therapy (MAT)[1]
  - Can be implemented in outpatient settings
  - AAP offers eight-hour MAT course
  - MAT maintenance produces better outcomes than detox alone[2]

1. Volkow ND, Frieden TR, Hyde PS, et al. *N Engl J Med.* 2014;370(22):2063-2066.
2. Weiss RD, Potter JS, Fiellin DA, et al. *Arch Gen Psychiatry.* 2011;68(12):1238-1246.

Deciding on Treatment Options

- Consider patient preferences, past treatment history, and treatment setting when deciding between the use of methadone, buprenorphine, and naltrexone in the treatment of addiction involving opioid use
  - Use shared decision making

Kampman K, Jarvis M. *J Addict Med.* 2015;9(5):358-367.

Deciding on Treatment Option

- Setting is as important the medication selected
  - Intensive outpatient
  - Partial hospitalization within a specialty addiction treatment facility, community mental health center, or similar setting
  - Residential treatment facility or hospital

Kampman K, Jarvis M. *J Addict Med.* 2015;9(5):358-367.

Treating Withdrawal Symptoms

- Opioid withdrawal medications are recommended over abrupt opioid cessation to avoid strong cravings
- Patients should be advised about risk of relapse and other safety concerns when opioid withdrawal medications are used as standalone treatment
- Assessment of patients undergoing opioid withdrawal management require close monitoring of opioid withdrawal-associated signs and symptoms

Kampman K, Jarvis M. *J Addict Med.* 2015;9(5):358-367.

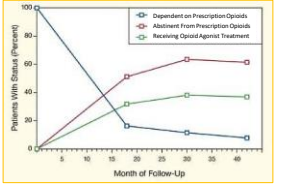
Managing Opioid Use Disorder: Medication Assistance Therapy (MAT)

Characteristic	Methadone	Buprenorphine	Naltrexone
Class/Mechanism	Agonist (fully activates opioid receptors)	Partial agonist	Antagonist
Brand Names	Dolophine, Methadose	Subutex, Suboxone, Zubsolv	Depade, ReVia, Vivitrol
Administration	Oral or injection	Oral or sublingual	Oral or injection
Effects	Reduces cravings and withdrawal symptoms	Relieves cravings and withdrawal symptoms	Diminishes the reinforcing effects of opioids
Advantages	High strength and efficacy as long as oral dosing Good option for patients who have no response to other medications	Eligible to be prescribed by certified physicians (increases availability/eliminates need to visit specialized treatment centers)	Not addictive or sedating Does not result in physical dependence Depot injection formulation (Vivitrol), eliminates need for daily dosing
Disadvantages	Mostly available through approved outpatient treatment programs	Subutex: measurable abuse liability (Suboxone diminishes the risk by including naloxone to induce withdrawal if the drug is injected)	Poor patient compliance (but Vivitrol should improve) Initiation requires attaining prolonged abstinence, during which withdrawal, relapse, and early dropout may occur

Volkow ND, Frieden TR, Hyde PS, et al. *N Engl J Med.* 2014;370(22):2063-2066.

Efficacy of MAT Interventions

Long-term follow-up of patients treated with buprenorphine/naloxone for addiction to opioid analgesics



At 18 months:

- **50%** reported abstinence

At 42 months (3.5 years):

- **61%** reported abstinence
- **< 10%** met diagnostic criteria for dependence on opioids

Sarlin E. NIDA Notes: Long-term follow-up of medication-assisted treatment for addiction to pain relievers yields "cause for optimism". National Institute on Drug Abuse website. Published November 30, 2015.

As an anesthesiologist or pain physician, you should refer patients to an specialist in addiction medicine when which of the following occurs?

- Urine drug testing detects the presence of the opioid you have been prescribing
- Urine drug testing is negative for the opioid you have been prescribing
- A patient escalates their use of a prescribed opioid without permission
- A family member expresses concern about a patient's prescribed opioid use

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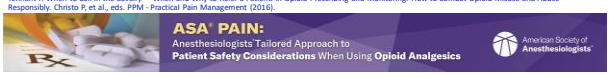
121

When to Consider Referral to a Substance Abuse Specialist

- Patient is using 80 to 100 MME
- Patient is using multiple sedatives (eg, benzodiazepines, muscle relaxants, anticonvulsant agents)
- Patient continually requires more opioids (verbal requests, early refills, emergency room visits)
- Patient is using non-authorized substances (illegal or non-prescribed drugs detected in urine)
- Patient is abusing or misusing the pain treatment regimen (as indicated by sedation, reduced functioning, third-party reports, missed appointments)
- Patient refuses nonopioid measures or reduction of opioid dosage

Tennant F. When to Call in the Cavalry— When and Why to Refer a Patient. *In* Opioid Prescribing and Monitoring: How to Combat Opioid Misuse and Abuse Responsibly. Christo P, et al., eds. PPM - Practical Pain Management (2016).



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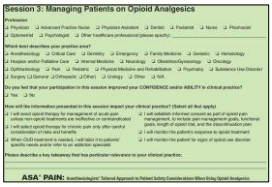
Conclusions: Key Takeaways

- Opioid therapy is often unnecessary for managing acute pain.
- Initiation of opioid therapy for patients with chronic pain should be a deliberate and well-informed choice.
- As part of informed consent or a PPA, discuss pain management goals, functional goals, the length of opioid trial, and the plan for discontinuation.
- Monitor response to opioid treatment
- Monitor for signs of OUD
- When OUD treatment is needed, tailor it to patients' specific needs and/or refer to a specialist in addiction medicine

123

Please complete your exit ticket…


Session 3: Managing Patients on Opioid Analgesics

ASA® PAIN: Anesthesiologists' Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics

…and pass it to the RIGHT

124

125

Pretest 7. Which of the following tools for assessing risk of opioid abuse was developed specifically for adolescent use?

- COMM
- CRAFFT
- DSM-5 Checklist
- SOAPP-R

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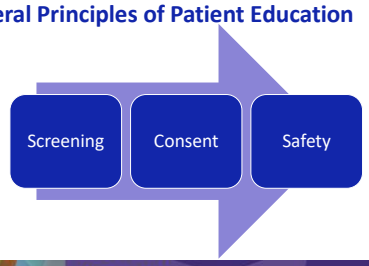
126

Pretest 8. Which of the following medications for treatment of opioid use disorder works by diminishing the reinforcing effects of opioids?

- Naltrexone
- Methadone
- Ketamine
- Buprenorphine

127

General Principles of Patient Education



128

Case Scenario: Kayla

Your patient is a 16-year-old female who presents to your office with left ankle pain. About three months ago, she fractured her medial malleolus while playing in a high school softball game. She was casted in the ED. For pain management, she was advised to elevate the foot and was given acetaminophen.

The cast was removed at six weeks, but the pain continued.

129

Initial visit

130

131

Do you think this teen is at risk for developing opioid use disorder?

- Yes
- No
- Possibly

132

Opioid Risk Tool (ORT)

- Can be administered and scored in < 1 minute
- Validated in both male and female patients (but not in non-pain populations)

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Scoring ≤ 3: low risk 4 – 7: moderate risk ≥ 8: high risk

Webster LR, Webster RM. *Pain Med.* 2005;6(6):432-442.

Patient Name: Kayla C.
Date: 03-18-19

Opioid Risk Tool

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals	1	

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CRAFFT Screening Interview

- Developed specifically for use among adolescent medical patients[1]
- Validated in patients ages 14-18 years seeking routine healthcare (and in other adolescent populations)[2]
- Most thoroughly studied substance abuse screen for adolescents[3]

CRAFFT Screening Interview

Part A
During the PAST 12 MONTHS, did you:
1. Drink any alcohol (more than a few sips)? (Do not count sips of alcohol taken during family or religious events.) ☐ Yes ☐ No
2. Smoke any marijuana or hashish? ☐ Yes ☐ No
3. Use anything else to get high? ("Anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff".) ☐ Yes ☐ No

For clinic use only: Did the patient answer "yes" to any questions in Part A?
- If yes, ask all 6 questions in part B below, then score.
- If no, ask question 1 in part B below, then stop and score.

Part B
1. Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?
2. Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?
3. Do you ever use alcohol or drugs while you are by yourself, or ALONE?
4. Do you ever FORGET things you did while using alcohol or drugs?
5. Do your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use?
6. Have you ever gotten into TROUBLE while you were using alcohol or drugs?

Scoring: Each "yes" response in Part B scores 1 point. A total score of ≥ 2 is considered a positive screen

1. Knight JR, Sherritt L, Shrier LA, et al. Arch Pediatr Adolesc Med. 2002;156(6):607-614.
2. Harris SK, Knight JR, Van Hooks S, et al. Subst Abus. 2016;27(1):197-203.
3. Dhalla S, Zumbo BD, Poole G. Curr Drug Abuse Rev. 2011;4(1):57-64.

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Initial visit (continued)

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What else should you do/ask before prescribing?

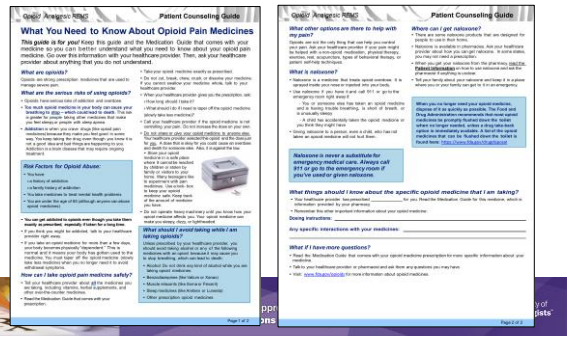
ASA® PAIN: Anesthesiologists' Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics

Educating Patients About Opioid Use: Key Topics to Cover

- Use exactly as prescribed
- Use smallest dose necessary for shortest amount of time
- Common side effects
- Risks of addiction and serious/deadly adverse events
- Known risk factors for serious adverse events
- Handling missed doses
- Importance of disclosing of all medications to all HCPs
- Risks of use with alcohol, benzodiazepines, other opioids
- Product/drug delivery-specific directions: what not to do
- Never share (and why)
- Risk of theft
- Safe storage and disposal
- Tapering to avoid withdrawal
- How/when to use naloxone
- When to seek emergency treatment

FDA Education Blueprint for Health Care Providers Involved in the Treatment and Monitoring of Patients with Pain. https://www.accessdata.fda.gov/drugsatfda_docs/rems/Opioid_analgesic_2018_09_18_FDA_Blueprint.pdf. Published September 2018.

139



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141

For whom should naloxone be prescribed together with the opioid prescription?

- Individuals receiving any opioid prescription
- Individuals at risk for opioid abuse
- Individuals on relatively high doses of opioids
- Individuals taking other medications that enhance opioid complications

142

Naloxone Guidance

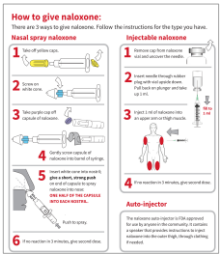
- Clinicians should co-prescribe naloxone to *individuals at risk for opioid overdose*, including but not limited to:
  - *Those on relatively high doses of opioids*
  - *Those who take other medications that enhance opioid complications*
  - *Those with underlying health conditions*

HHS recommends prescribing or co-prescribing naloxone to patients at high risk for an opioid overdose [news release]. HHS Press Office; December 19, 2018. https://www.hhs.gov/about/news/2018/12/19/hhs-recommends-prescribing-or-co-prescribing-naloxone-to-patients-at-high-risk-for-an-opioid-overdose.html.

143

Practice Changes to Protect our Patients: Overdose Prevention and Reversal

- Specific strategies for poisoning vs. intentional harm vs. recreational use
  - Awareness of potential for accidental exposure and overdose in children 0-5 yrs
  - Increased availability of naloxone



San Francisco Department of Public Health. Opioid safety and how to use naloxone: a guide for patients and caregivers. http://prescribetoprevent.org/wp2015/wp-content/uploads/CA-Detailing_Patient_final.pdf.

144

Practice Changes to Protect Our Patients: Disposal

- Include disposal instructions at discharge
- Advise storage in locked cabinets
- Provide educational material about local disposal resources
- Organize/incentivize disposal at the main hospital, satellites
- Establish public/private partnerships
- Identify state-/county-/city-/suburb-level disposal locations

Informed Consent: It's Not Just About Addiction

- Tolerance
- Physical dependence
- Addiction
- Increased sensitivity to pain (hyperalgesia)
- Constipation
- Nausea, vomiting and dry mouth
- Sleepiness and dizziness
- Confusion
- Depression
- Low testosterone/decreased libido/endocrinopathies
- Itching and sweating
- Immune suppression/cancer?
- Clinic agreement as part of consent process

Follow-up call

Follow-Up with Dr. Suresh

One year later

- Kayla sustains another injury to her ankle
- X-ray showed no signs of fracture
- Splinted and sent home with acetaminophen
- 2 weeks post-injury, pain is 9/10
- Physical exam is positive for point tenderness over the lateral malleolus
- Asking for same pain medication as last year
- ORT score still = 1, but PDMP shows that she received 3 other opioid prescriptions in the past few months

Visit one year later

Warning Signs of OUD

- Frequent requests for opioid medication
- Requesting a particular medication by name
- Pain out of proportion to mechanism of injury and physical exam findings
- Decrease in functioning (eg, school, work)
- Missing school or work
- Suspension from school or job loss due to drug-related activity
- Withdrawal from social and recreational activities
- Avoiding friends or family
- Changes in behavior or mood
- Financial problems
- Bad or reckless decisions
- Avoiding friends and family

DSM-5 Criteria for OUD

Check all that apply	Criteria (within a 12-month period)
☐	Opioids are often taken in larger amounts or over a longer period than was intended
☐	There is a persistent desire or unsuccessful efforts to cut down or control opioid use
☐	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid or recover from its effects
☐	Craving or a strong desire or urge to use opioids.
☐	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school or home
☐	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
☐	Important social, occupational or recreational activities are given up or reduced because of opioid use
☐	Recurrent opioid use in situations in which it is physically hazardous
☐	Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
☐	Exhibits tolerance*
☐	Exhibits withdrawal*
Total checked: _____	If OUD is diagnosed (≥ 2 criteria met), assess severity as mild (2-3 criteria met), moderate (4-5 criteria met) or severe (≥ 6 criteria met).

*Not considered to be met for individuals taking opioids solely under appropriate medical supervision.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington, DC: American Psychiatric Publishing; 2013.

How would you rate the severity of Kayla's OUD based on what you know now?

Mild

Moderate

Severe

DSM-5 Criteria for OUD: Kayla

Check all that apply	Criteria (within a 12-month period)
x	Opioids are often taken in larger amounts or over a longer period than was intended
x	There is a persistent desire or unsuccessful efforts to cut down or control opioid use
x	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid or recover from its effects
☐	Craving or a strong desire or urge to use opioids.
x	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school or home
☐	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
☐	Important social, occupational or recreational activities are given up or reduced because of opioid use
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Starting the Conversation About Ending Opioids

- Best approach: frank and direct conversation about the facts
- Discuss opioid-abuse behaviors in a nonjudgmental manner
- Focus on the behaviors that make you concerned
- Reiterate PPA policies
- Focus on patient safety and reiterate long-term effects of opioid medications
- Identify *practical* solutions

How to Taper Opioids*

- **Go Slow**: A decrease of 10% of the original dose per week is a reasonable starting point
  - Patients who have taken opioids for a long time may need to taper more slowly
  - Discuss the increased risk for overdose if patients quickly return to a previously prescribed higher dose
- **Consult:** Coordinate with specialists and treatment experts, as needed
  - Use extra caution during pregnancy due to possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal
- **Support:** Make sure patients receive appropriate psychosocial support
  - If needed, work with mental health providers, arrange for treatment of opioid use disorder, offer naloxone for overdose prevention
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- **Encourage:** Let patients know that most people have improved function without worse pain after tapering opioids; some even have improved pain after a taper (though pain might briefly get worse at first). Tell patients "I know you can do this."

*Tapering plans should be individualized and should minimize symptoms of opioid withdrawal while maximizing pain treatment with nonpharmacologic therapies and nonopioid medications.

Pocket Guide: Tapering Opioids for Chronic Pain. CDC website. https://www.cdc.gov/drugoverdose/pdf/clinical_pocket_guide_tapering-a.pdf

What's next for cases like Kayla's?

- Develop a patient-provider agreement
- Switch patient to non-opioid pain management
- Try cognitive behavioral therapy to try to reduce pain
- Work closely with the pediatrician

Managing Opioid Use Disorder

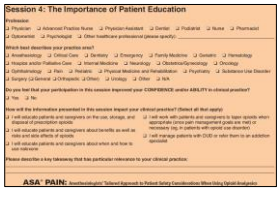
- Detox with withdrawal management
  - Inpatient vs. outpatient
- Moderate to severe OUD: consider inpatient stabilization and involvement of addiction specialist
- Severe OUD: Medication assisted therapy (MAT)

Volkow ND, et. Al. *N Engl J Med* 2014; 370:2063-2066.

Summary / Key Takeaways

- Patient/caregiver education is a critical aspect of opioid pain management to ensure adherence and reduce risks of opioid misuse and abuse
  - Patients and caregivers need to understand how to use, store and dispose of opioid analgesics
  - Patients and caregivers need to know how and when to use naloxone
- Patients and caregivers need to understand the benefits and risks of opioid pain management
- Clinicians who prescribe opioids for pain management need to know
  - Warning signs of OUD
  - When and how to taper opioids safely
  - How to treat OUD or when to refer to an substance abuse specialist

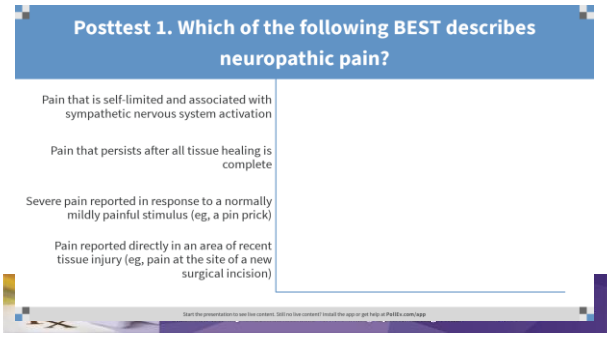
Please complete your exit ticket…


Session 4: The Importance of Patient Education

…and pass it to the RIGHT

What's left to claim your credit?

1. Answer **8** posttest questions
2. Create an **Action Plan**
3. Complete the **Paper Evaluation**



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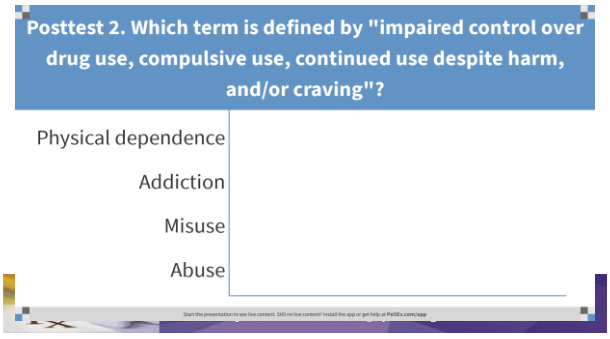

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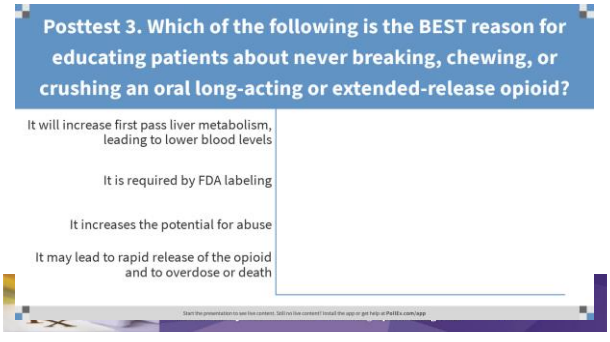

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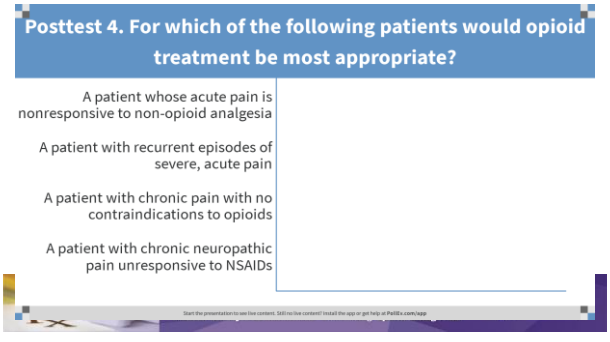

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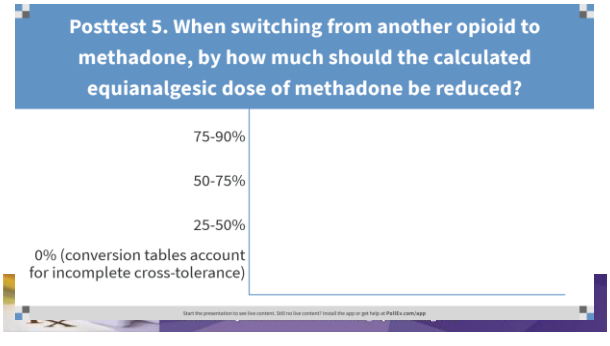

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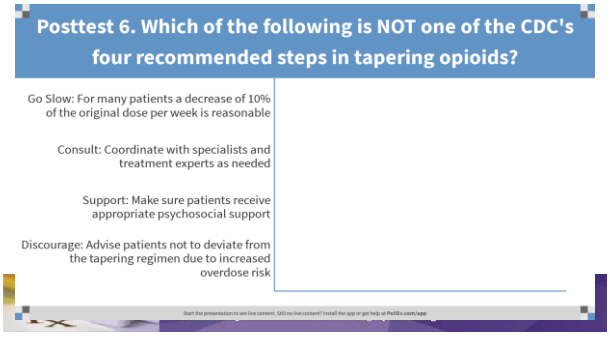


168

Posttest 7. Which of the following tools for assessing risk of opioid abuse was developed specifically for adolescent use?

- COMM
- CRAFFT
- DSM-5 Checklist
- SOAPP-R

169

Posttest 8. Which of the following medications for treatment of opioid use disorder works by diminishing the reinforcing effects of opioids?

- Naltrexone
- Methadone
- Ketamine
- Buprenorphine

170

How to develop an *ACTION PLAN*

171

Creating a "SMART" Action Plan:

Decide on One Specific Performance or System Gap You'd Like to Change

Specific	Describe your goal clearly
Measurable	How will you evaluate whether your goal is met?
Achievable	Is this goal achievable in your current environment?
Relevant	How will achieving your goal improve patient care?
Time-bound	When can your goal be achieved?

What are the first steps you will take?

Step 1:
Step 2:
Step 3:

ASA® PAIN: Anesthesiologists Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics
American Society of Anesthesiologists

172

Take a few moments to create a plan

Please use the following SMART framework to sharpen your approach to your major barrier. Your goal should be feasible with positive results if you succeed. If one or more of the aspects is insurmountable, choose another objective.

Which barrier have you selected? Initial barrier: lack of access to an ILD patient network; and lack of connection with an ILD center or experts in the geographic area

Formulate your SMART objective to address that barrier:

	General Description	My Description
Specific	Describe your objective clearly	
Measurable	How will you evaluate whether your goal is met?	
Achievable	Is this goal achievable in your current environment?	
Relevant	How will achieving your goal improve patient care?	
Time-bound	When can your goal be achieved?	

What are the first steps you will take?

Step 1:
Step 2:
Step 3:

ASA® PAIN: Anesthesiologists Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics
American Society of Anesthesiologists

173

Access the Action Plan on your phone using the link below:

REMSactionplan.com/GSA

ASA® PAIN: Anesthesiologists Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics
American Society of Anesthesiologists

174

Questions?

Please complete your evaluation!

All credit claiming instructions are located in your handouts.

175

Poster Abstract Competition

Congratulations to the following members whose abstracts were scored and selected for presentation during the Saturday, June 29, morning break:

Alexandra Waits, MCG, Medical Student
Vats Ambai, Mercer, Medical Student
Ashish Sakharpe, MD, MCG, Resident
Ryan Nicklas, MD, MCG, Resident

GSA expresses thanks for submitting abstracts to these members:

Mayank Mehrotra, MD, MCG
Zahra Sykes, MD, MCG
Lisa Tang, MD, Emory
Surbhi Mathur, MD, MCG

Learning Objectives

SOAP Enhanced Recovery after Cesarean

Mark Zakowski, MD, FASA

At the completion of this session, the participants will be able to:

- Use scheduled multi-modal analgesics to decrease opioid consumption in hospital
- Educate patients about pain, pain expectations and pain medications post-cesarean
- Institute many components of an enhanced recovery program for cesarean
- Reduce opioid consumption and thereby risk of opioid dependence post discharge

Dr. Zakowski has no financial relationships to disclose. He will not discuss products which he had a role in developing. He will not include a discussion of off label uses of commercial products and/or unapproved investigational use of any product.

Enhanced Recovery after Cesarean
SOAP 2019

Mark Zakowski, M.D., FASA
Chief, Obstetric Anesthesiology Cedars-Sinai
Immediate Past-President, Society of Obstetric Anesthesia and Perinatology
Past-President, California Society of Anesthesiologists

ACCME Disclosures

- No conflicts of interest

Disclaimer:

- Member, CMQCC Task Force Preeclampsia, Mother/Baby Substance Exposure Initiative
-
- Passionate about Maternal and Baby well being
- Owner, Quantum Birthing LLC

ERAS = Enhanced Recovery Program

Enhanced Recovery After Surgery

- Interdisciplinary
- Perioperative care
- Clinical outcomes
- LOS

-Ljungqvist O. JAMA Surg 2017:152:292-8

Enhanced Recovery Cesarean – SOAP 2019

GOAL ERAS Cesarean:

- ***Evidence based and patient centered care using a systematic, multidisciplinary approach to optimize maternal and newborn outcome.***
- ***Culture of applying current knowledge, continual process improvements and education.***

Enhanced Recovery Program- ERP

- Not spinal mixture
- Not pain control
- Not super-tech

- Not ALL inclusive 'best practices'

- Functional GOAL

Genomics

Enhanced Recovery Interdisciplinary

Continuum of care
- Pre-op
- Intra-op
- Post-op

NOT just pain medications – so much more!

ERP Cesarean Interdisciplinary

Multidisciplinary
- Education
- Patient
- Surgeon
- Anesthesiology
- Scrub tech
- Nursing
- Lactation
- Follow-ups

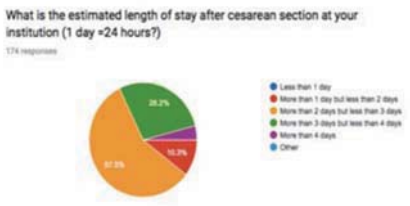
Enhanced Recovery Goals

Improved care and efficiency
- **Better quality of post-Cesarean care**
- **Reduced patient morbidities**
- **Reduced costs**

Figure Legend:

Enhanced Recovery After Surgery (ERAS) FlowchartA typical ERAS flowchart overview indicating different ERAS protocol items to be performed by different professions and disciplines in different parts of the hospital during the patient journey. The wedge-shaped arrows depicting each time period move into the period to follow to indicate that all treatments given affect later treatments. No NPO indicates fasting guidelines recommending intake of clear fluids and specific carbohydrate drinks until 2 hours before anesthesia; PONV, postoperative nausea and vomiting. Reprinted with permission from Olle Ljungqvist, MD, PhD.

Enhanced Recovery: Cesarean LOS



Cesarean LOS

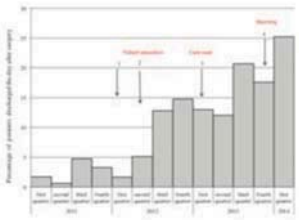
Univ Penn 1988-1991

- LOS decreased 26%
  - 116 to 86 hours, p<.01
- Early discharge
  - RN home visit x2
  - Phone calls x10
- Greater satisfaction 14% higher, p<.01
- Readmit: p=NS
- Hospital charges 29% less

-Brooten D. Obstet Gynecol 1994:84:832-8.

ERP Cesarean – Day 1 Discharge

	2012	2014
Day 1 Discharge	1.6%	25.2%
30-day readmit		
Day 1 D/C		4.4%
Day 2 D/C		5.6%
Day 3+ D/C		12.9%
Delays:		PACU LOS
		Pain
		Breastfeeding
		PPH



-Wrench IJ. IJOA 2015:24:124-30

ERP Cesarean

	Pre ERAS	Post ERAS	
LOS - days	4.34±.71	3.92±.61	P<.01
Autonomy toilet- h	45	26.5	P<.01
Mobility - h	19.3	10.5	P<.01
Urinary Catheter -h	17	4.3	P<.01
Complications			
Urinary retention –Rx straight cath	2.4%	13.1%	P<.01

-Rousseau A. Gynecol Obstet Fertile Senologie 2017:45:387-392

ERP Pre-Admission

- Anxiety
  - Sympathetic tone
- Education
  - Patient Expectation
- Immune function
- Pain severity
  - depression
- Patient satisfaction

-Hobson JA IJOA 2006, Orbach-Zinger BJA 2012, Eisenach JC Pain 2008

ERP Cesarean Pre-admission

Goal	Where	"Owner"
Hb optimization	Prenatal visit	OB
Medical optimization BMI>40, HTN, DM, Anemia, Smoking	Prenatal visits High Risk Obstetric Anesthesia Consult	OB Anesthesiologist
Patient Preparation Education Expectation	Hospital/office/Flyer enroll patient accept desired behaviors Pain functional vs. relief	Hospital-ERAS Team
Lactation education	Hospital/office/flyer	Hospital/Lactation Team
Patient Preparation	Call 1-2 days before, reinforce	Hospital-ERAS Team

ERP Cesarean Pre-OP Period

Goal	Where	"Owner"
Reduce Infections	Shower home CHG cleanse no Shaving	Hospital-ERAS Team Pre-Admission instructions
	Hospital – CHG wipes	Nursing
Temperature	Pre-op room consider 'pre-warming' OR 72ºF minimum	Hospital-ERAS Team
Antibiotics	Within 1 hour of incision Cefazolin 2gm, 3 gm>120kg Clinda/Gent for true "PCN allergy" Consider azithromycin 500 mg IV If labor to cesarean.	Nursing/Anesthesiology/Pharmacy/OB

SOAP ERAC Cesarean Pre-OP

Recommendation	Action	Level/'Owner"
Limit fasting**	Solids to 6*-8 hrs prior Clear liquids to 2 hrs prior *ASA definition light meal	Classs IIb, Level C-EO Pre-Admission instructions Hospital-ERAC Team
Non-particulate liquid carbohydrate loading**	Carbohydrate load drink 2hr non-DM, non-GDM simple vs complex (maltodextrin) 45 gm (e.g. Gatorade 32 oz/apple juice 16 ounce)	Classs IIb, Level C-EO Pre-Admission instructions Hospital-ERAC Team
Patient Education**	Education, recovery, expectations	Class IIb, Level C-NR
Lactation/Breastfeeding Preparation and Support	Education	Class IIa, Level B-R
Hemoglobin Optimization	Screen Anemia, Iron per ACOG	Class IIa, Level B-R

SOAP ERAC Cesarean Intra-op

Recommendation	Action	Level/"Owner"
Initiate Multimodal Analgesia**		Class 1, Level A
Neuraxial long acting Opioid low dose	IT morphine 0.15 mg max (0.05-0.15 mg) Epidural morphine 3 mg max (1-3mg) Doses: SOAP COE	Anesthesiology
Non-opioid analgesia started in OR	Ketorolac 15-30 mg IV after peritoneum closed Acetaminophen IV or PO before or after Delivery Consider Local Anesthetic wound infiltration or regional blocks in select cases (e.g. no neuraxial opioid, risk for severe pain) TAP, QL	

SOAP ERAC Cesarean Intra-op

Recommendation	Action	Level/"Owner"
Intra and Post Operative Nausea and Vomiting (IONV/PONV) prophylaxis**	Prophylactic vasopressor infusion decrease IONV from hypotension Combination of at least 2 prophylactic IV antiemetics with different mechanisms of action. Examples: 5HT3 antagonist (e.g. ondansetron 4mg) Glucocorticoid (e.g. dexamethasone 4mg) D2 receptors antagonist (e.g. metoclopramide 10mg)	Class 1, Level B-R IONV/PONV Anesthesiology
	Limiting uterine exteriorization	Class IIb, Level C-LD: OB
Delayed cord clamping	Vigorous term and preterm infants, per ACOG	Class I, Level A
Promote Breastfeeding and Maternal-Infant Bonding**	Skin-to-skin in OR (if mom and baby stable)	Class IIa, Level C Nursing, Anesthesiology OB
Optimal uterotonic**	Potential to standardize bolus/drip, low dose	Class IIa, Level B-R

SOAP ERAC Cesarean Intra-op

Recommendation	Action	Class/'Owner'
Prevent Spinal Hypotension**	Decrease IONV, Prophylactic e.g. Phenylephrine infusion 0.5 mcg/kg/min	Class 1, Level A Anesthesiology
Maintain Normothermia**	Active warming Examples: In-Line IV Fluid Warmer • Forced air warmer • Consider active warming pre-op • OR temperature >72ºF (TJC guidance)	Class 1Ia, Level C-LD ERAC Protocol
Antibiotic prophylaxis**	Prior to skin incision Do not wait for after cord clamping Follow ACOG guideline	Class 1, Level A ERAC Protocol
IV Fluid optimization	Moderate fluids <3L for routine cases; Transition to institutional hemorrhage resuscitation protocol for hemorrhage	Class IIA, Level C-EO Anesthesiology

ERP PACU

Goal	Where	"Owner"
Pain control	IV narcotic as rescue only NSAID, Acetaminophen already given lower doses, longer acting	ERAS Protocol/Anesthesiology
PONV	Additional meds, different classes: 5-HT3 antagonist (e.g. ondansetron) Dopamine antagonist (e.g. Metoclopramide) Dexamethasone Mu receptor antagonist if narcotics	Anesthesiology PACU orders
BabyFriendly/Breastfeeding	Skin-to-skin in PACU (if mom and baby stable)	Nursing
Temperature	PACU arrival 36ºC goal Fluid warming Underbody/forced air warming	Nursing

ERP PostPartum

Goal	Where	"Owner"
Pain control	PO narcotic as rescue only NSAID, Acetaminophen scheduled PO Narcotic lower doses, longer acting 2.5-5 mg oxycodone Q3h max 2 days	ERAS Protocol/Anesthesiology
Early Feeding	Ice chips/sips fluid @ 60 min PACU Food @ 4 hrs	ERAS Protocol/Nursing
Early Mobilization	Dangle legs 4 hrs Ambulate 8 hrs Ambulate QID	Nursing
Urinary Catheter	Removal 8 hr. shorter higher incidence re-cath	Nursing/ERAS Protocol
IV	Heplock when tolerating 500 ml PO Urine output >0.5ml/kg/hr. Goal: 12-24 hr to remove	Nursing/ERAS Protocol

SOAP ERAC Cesarean PostPartum

Recommendation	Action	Level/"Owner"
Early oral intake**	Ice chips/sips fluid @ 60 min PACU Food @ 4 h	Class IIb, Level C-EO ERAC Protocol/Nursing
Glycemic control	Normoglycemia (<180-200 mg/dL)	Class I, Level B-R
Promotion resting periods**	Optimize sleep and rest Limit unnecessary interruptions	Class IIb, level C-LD Nursing/ERASC Protocol
VTE prophylaxis**	Follow institutional policies, see ACOG, ACCP guidelines	Class IIa, Level B-NR Nursing/ERAC Protocol
Facilitate Early Discharge**	Standardize discharge/coordinate Establish patient oriented goals early	Class IIb, Level C-EO
Promotion return bowel function	Minimization of opioids Consider chewing gum Availability of multiple PRN bowel medications	Class IIb, Level C-EO

SOAP ERAC Cesarean PostPartum

Recommendation	Action	Level/"Owner"
Early Mobilization** After return of motor function	*0-8hrs Post-op:* • Sit on edge of bed • Out of bed to chair • Ambulation as tolerated *8-24hrs Post-op*: • Ambulation as tolerated • Walk: 1-2 times (or more) in hall *24-48hrs Post-op*: • Walk: 3-4 times (or more) in hall • Out of bed for 8 hours	Class I, Level B-NR Nursing
Early Urinary Catheter removal**	Removal 6-12 h Earlier removal may be associated with higher rates of need for re-catheterization	Class IIB, level C-EO Nursing/ERAS Protocol
IV	Heplock when oxytocin infusion complete, tolerating fluids, and urine output adequate	Nursing/ERAS Protocol

SOAP ERAC Cesarean PostPartum

Recommendation	Action	Level/"Owner"
Multimodal Analgesia**	Scheduled NSAID, Acetaminophen e.g. acetaminophen 650-1000 mg q6hrs scheduled ibuprofen 600mg q6hrs (or naproxen 500 BID or) scheduled *after* IV ketorolac 15-30mg was given after Oral narcotics PRN e.g. Oxycodone 2.5 -5mg PO q4hrs PRN TAP block does not provide significant improvement when given in addition to neuraxial morphine and scheduled NSAID/Acetaminophen. Peripheral nerve blocks (TAP/QL, wound) may be helpful for breakthrough or high risk pain or neuraxial morphine cannot be given Gabapentinoids have not been shown to have significant benefit in routine cesarean; may be appropriate in select patients	Class I, Level A Anesthesiology, Nursing, ERAC Protocol

Welcome to *Name of your Hospital*

Things To Be Done Before You Go Home

MOM

First 24 hours after your surgery:

- ❑ Eat and drink within 4 hours after your surgery
- ❑ Sit up in bed within 4 hours after your surgery
- ❑ Walk within 8 hours after your surgery
- ❑ Breastfeeding teaching with nurse
- ❑ Needed blood tests
- ❑ Talk about birth control with your obstetrician
- ❑ Walk 4 times a day ☐☐☐☐

Next days after your surgery:

- ❑ Obstetric team visit on the day of discharge
- ❑ Review home care instructions with nurse
- ❑ Make sure your prescriptions are ready
- ❑ Walk 4 times a day ☐☐☐☐
- ❑ Talk to your team if you have questions (for example contraception questions)

BABY

First 24 hours after your surgery:

- ❑ Pick a doctor for your baby
- ❑ Hepatitis B vaccine
- ❑ Hearing check
- ❑ Routine blood checks
- ❑ Oxygen level check

Next days after your surgery:

- ❑ Complete birth certificate form/social security
- ❑ Bring car seat before day of discharge
- ❑ Pediatric team visit on day of discharge

Patient Name:

Room:

Nurse Today:

Admission Date:

Target Discharge Date:

Target Discharge Time:

Available Classes and Resources

Breastfeeding Classes:
Time:
Place:

Car Seat Classes:
Time:
Place:

Courtesy Lucile Packard Children's Hospital-Stanford University, Palo Alto, CA

What is Enhanced Recovery after Cesarean Section (ERAC)?

ERAC is a step by step plan to help you feel better faster after your Cesarean Section. Research has shown this plan helps you to manage your pain better, and help you start eating and moving soon after your surgery.

Spinal Anesthesia

Most scheduled Cesarean Sections are done with a spinal or combined spinal-epidural anesthetic.

The spinal medicine will make your body go numb from your chest down through your legs. The surgery will not start until you are numb. It is normal to feel some pressure and tugging during your Cesarean Section, but you will feel minimal to no pain. Let you anesthesia provider know if you fell any pain or discomfort.

How is a Spinal Anesthesia given?

A numbing medicine will be placed on your back where the anesthetic will be placed. If you feel discomfort, more numbing will be given. You may feel pressure when the medicine is given, but it should not be painful. After a few minutes your legs will start to feel numb.

Courtesy Lucile Packard Children's Hospital-Stanford University, Palo Alto, CA

Frequently asked questions

How long will I be in the Hospital?
If you have Cesarean Section, you will be in the hospital for around 3 days. Women with complications might need to stay longer.

I am very nervous about my Cesarean Section, can I be asleep for it?
Spinal anesthesia is safer. General anesthesia, or being asleep for your Cesarean Section, has risks for mom and baby and is usually reserved for emergencies.

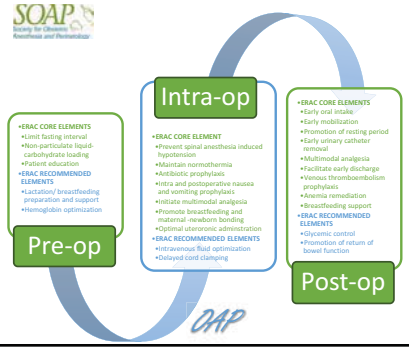
Can my partner stay with me during my Cesarean Section?
Yes, your partner can stay with you during your Cesarean Section. If there is an emergency your partner will be escorted out of the operation room, so the anesthesia team can focus on taking care of you.

Can I still hold my baby to my chest if I am having a Cesarean Section?
Yes. Doctors will check your baby right after birth and if s/he is doing well, and it is a safe time during surgery, the baby will be brought to you for skin-to-skin.

Recovery After your Cesarean Section
Patient Handout
Enhanced Recovery after Cesarean Section (ERAC)

Resources

Labor and Delivery	Add Phone Number
Breastfeeding Class	Add Details
Car Seat Class	Add Details



Patient Instructions

	Before Delivery	Just before and during your Cesarean Delivery	First 24 hours after your surgery	24 hours before your hospital discharge
Pain control	Take medicines as instructed by your anesthesia and obstetric providers	You will receive spinal or epidural anesthesia for your Cesarean delivery	Take pain medicines as directed If needed, ask for medicines for itching, nausea and shivering	Take pain medicines as directed Continue skin-to-skin contact with your baby
Skin care	Don't shave pubic hair the day before or day of your Cesarean Shower or bathe and wait until you are completely dry before using the disinfectant wipes night before surgery		Do not touch your incision site	Bandage over incision is removed You may shower or bathe Follow wound care instructions
Eating and drinking	You may eat until 6-8 hours before your Cesarean delivery You may drink clear liquid (water) or a carbohydrate-containing drink up to 2 hours before surgery		You may start chewing gum while in recovery You may eat and drink as soon as you feel you are ready	Eat healthy foods, that are easy to digest Drink 8-10 large glasses of water each day

Patient Instructions

Activity	Normal		With the assistance of your nurse: Sit up in bed within 4 hours after surgery Walk within 8 hours after surgery Walk at least 4 times every day	Walk at least 4 times every day Don't lift anything heavier than your baby
Breastfeeding	Discuss breastfeeding with your care team If you plan to pump at home plan for it	Communicate your breastfeeding preference with your care team Ask for lactation support and inform yourself how to hand express to help stimulate your milk supply	Start breastfeeding as soon as possible after birth Breastfeed at least every 3 hours or more often if baby is hungry Your nurse and lactation services can address any question you have Try attend a breastfeeding class	Breastfeed at least every 3 hours or more often if baby is hungry
Other Steps	Don't smoke as smoking may delay your recovery from surgery Talk to your doctor about programs to stop smoking			Review discharge instructions Schedule follow-up appointments with your obstetric provider and pediatrician

ERAS Cesarean Elements ACOG

Preop
- 2 h fasting clear liquid
- Carbohydrate supplement
- Skin prep

Intraop
- Normothermia
- Surgical technique
- Euvolemia

Postop
- Chewing gum
- PONV control
- Analgesia
- **2 h eat**
- Glucose control
- VTE prophylaxis
- Ambulation
- Urinary catheter removal

-Wilson RD, Caughey AB et al. AJOG 2018:219:523-38

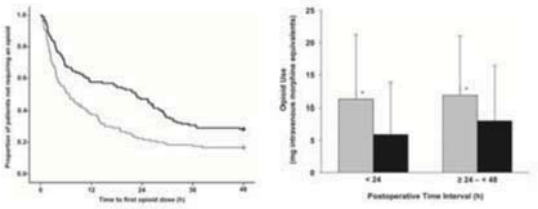
ERP: OPIOID Reduction

Goal	Where	"Owner"
Acetaminophen	Acetaminophen 3000 mg/day recommended 625 mgQ6h or 1000 mg Q8h Healthy, short term (2-3 days) 4000 mg/day also used (FDA warning)	
NSAID	Ibuprofen 600 Q Q6h or naproxen 500 BID PO Ketorolac 30 mg Q6h IV	
Med Optimization	Staggered vs. simultaneous	
Opioid reduction	Intra-op Neuraxial low dose	Anesthesiology
	Multimodal analgesia – NSAID & Acetaminophen scheduled Local Anesthetic wound/TAP consider	ERAS Protocol
	Oral Narcotic rescue only Discharge Rx – minimal/no opioid (max 2 days)	OB

ERP Opioid Reduction

- Opioid tolerant/low pain threshold
- Epidural infusion postop
  - Local anesthetic dilute/lipophilic narcotic dilute
  - Stronger as needed for Opioid tolerant e.g. suboxone
- Pain service consultation
  - Ketamine infusion possible
  - Long acting narcotic

Acetaminophen scheduled +NSAID



-Valentine AR. IJOA 2015:24:210-6

Non-Opioid Analgesics: Multimodal Options

Class	Medication
Acetaminophen	Acetaminophen
Alpha-2 agonists	Clonidine Dexmedetomidine
Gabapentinoids	Gabapentin Pregabalin
Local Anesthetics	Bupivacaine Liposomal Bupivacaine Lidocaine
NMDA receptor antagonists	Ketamine
NSAID	Celecoxib Ibuprofen Ketorolac, etc.

-Wu CL. Lancet 2011:377:2215-25

Future

- Local Anesthetics
  - Single injection
  - Wound infusion/long acting
  - TAP block
  - QL block
- Adjuncts
  - Gabapentin
  - Ketamine
  - Clonidine
- VR

NOT ENOUGH EVIDENCE TO SUPPORT INCLUSION ERAS/MANDATED ROUTINE USE

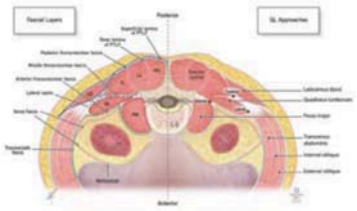
Components may be helpful for those with history of severe pain/opioid tolerance

-Carvalho B. Best Practice & Research Clinical Anaesthesia 2017;31:69-79. SOAP ERAS task force

Quadratus Lumborum Block

- QL1 Cesarean RCT n=60
- IT Bupiv, fent
- IV Paracetamol Q6h

- QL1 for 48 h
- Less morphine
  - 16 v 42 mg, p<.001
- Lower pain score, p<.001



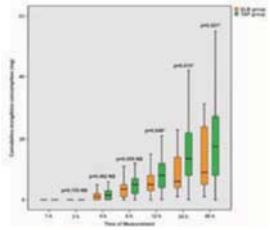
-Mieszkowski MM. Ginekologia Polska 2018:89:89-96

Elsharkaway H. Anesthesiology 2019:130:322-35

Quadratus Lumborum Block type 2: Cesarean

QL2 v TAP, RCT cesarean, n=78
- IT Bupiv, fent
- NSAID, paracetamol

QL2: for 48 h
- Less Morphine IV PCA
  - 9 vs 17mg /48h, p<.05
- Fewer demands p<.05
- VAS similar



-Blanco R. RAPM 2016:41:757-762

Breastfeeding - Neonatal Transfer

Opioid	RID (%)
Morphine	5.8-10.7
Fentanyl	0.9-3
Oxycodone	1.5-8
Hydrocodone	1.6-3.7
Tramadol	2.4-2.9

Non-Opioid Analgesics	RID (%)
Ibuprofen	0.1-0.7
Ketorolac	0.2-0.4
Celecoxib	0.3
Acetaminophen	1.3-6.4
Gabapentin	1.3-6.5

Relative Infant Dose – RID, 10% transfer undesirable

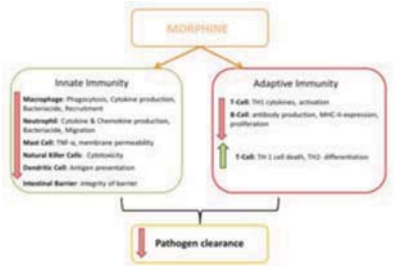
-Carvalho B. Best Practice & Research Clinical Anaesthesia 2017;31:69-79

Uterine Handling

	Exteriorize (n=355)	In-Situ (n=732)	P
Surgery (min)	58.8±15	50.7±9	<.05
LOS (day)	2.83±1.4	2.04±0.37	<.05
First Bowel Movement (h)	17.1±6.6	14.15±4.5	<.05
SSI (%)	13.2	0.6	<.05
Intraop Hypotension	39.4	34	.08
Intraop N/V	29.3	27	.48

-Gode F. Arch Gynecol Obstet 2012:285:1541–1545

Opioid – Immune Function



-Plein LM, Rittner HL. Br J Pharmacology 2018:175:2717-25

ERP Cesarean LOS Decrease

Goal	Where	"Owner"
Mom	Ambulates Urinates Afebrile Stable Baby disposition NOT a prerequisite. Can sit with baby in nursery area.	ERAS Protocol/Team/OB
Baby	Baby Discharge criteria independent of maternal disposition Pediatricians need to be engaged – for time of day/timely orders D/C	Pediatrics
BreastFeeding	Lactation consult if needed	RN/Lactation
Rx	If no Opioid Rx, NSAID, Acetaminophen OTC Education pre-admission, have meds at home before coming to hospital	ERAS Protocol/Team/OB

ERP: Cesarean LOS

Saint Peter's Univ. Hospital, NJ

- N=110
- LOS pre ERAS 3.7 days
- LOS post ERAS 2.45 days = 34% reduction
- ROI: 300%

- Cherot E, Kett A, Mauro R. Enhanced Recovery Program reduces Length of Stay
- and improves value for patients undergoing elective cesarean section, Poster ACOG Annual Meeting 2018

ERP Implementation

Motivation

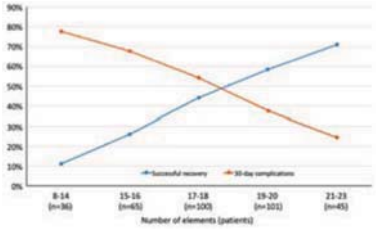
- Reduce complications 91%
- Higher patient satisfaction 73%
- Shorter Length of Stay 62%

Barriers

- Time 69%
- Colleagues 68%
- Logistics 66%

-Martin D. A multicenter qualitative study assessing implementation of an ERAS after surgery program. Clin Nutri 2018;37:2172-2177

ERAS Additive Benefits (Colorectal)



-Pecorelli N. Surg Endosc 2017:31:1760-71

Chronic Opioid Risk from Cesarean

- Risk 0.36% (1/300) opioid naïve
  - Commercial insurer

Predictor	adjusted Odds Ratio
Cocaine abuse	6.1
Antidepressant use	3.2
Tobacco use	3
Illicit substance abuse	2.8
Migraines	2.1
Back pain	1.7

-Bateman B. Am J Obstet Gynecol 2016;215:353.e1-18.

Opioid Rx after Vaginal Delivery

- Medicaid – PA
  - 164,720, 2008-2013
- 12% filled Rx within 5 days, opioid naïve
  - 14% **filled second opioid Rx 6-60 days (1.6% of all deliveries)**

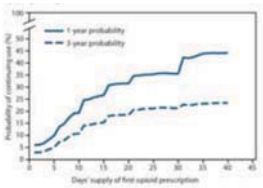
Predictor	adjusted Odds Ratio
Tobacco	1.3
Mental Health condition	1.3
Abuse disorder (non-opioid), 2nd Rx	1.4

-Jarlenski M. Obstet Gynecol 2017;129:431–7

Chronic Opioid: Rx Discharge

Chronic Opioid – Rx at Discharge
- 5 days, 30 days – increase
- Includes Tramadol
- Second opioid Rx

MINIMIZE Opioid Rx Discharge



-Shah A. Characteristics of initial prescription episodes and likelihood of long-term opioid use – United States 2006-2015, MMWR 2017 Vol 66 #10

Opioid Vaginal Delivery

TABLE 2
Postpartum analgesia utilization in the last 24 hours of inpatient hospitalization

Analgesia medication	All Vaginal deliveries (n = 9038) (n, %)	Tablet count	Tablet range	MME, median	MME, range
Opioid	2242 (24.8)	3 (2–4)	1–13	20 (10–40)	5–160
NSAID	8774 (97.1)	4 (4–4)	1–6	—	—
Acetaminophen	2328 (25.8)	2 (2–4)	1–6	—	—
	Uncomplicated vaginal deliveries (n = 5038)				
Opioid	1032 (20.5)	3 (2–4)	1–10	20 (10–35)	5–120
NSAID	4908 (97.4)	4 (4–4)	1–6	—	—
Acetaminophen	1255 (24.9)	2 (2–4)	1–6	—	—

Data are presented as n (percentage), median (interquartile range), or range.
IQR, interquartile range; MME, morphine milligram equivalents; NSAID, nonsteroidal anti-inflammatory drug.
Badreldin et al. Inpatient postpartum opioid use. Am J Obstet Gynecol 2018.

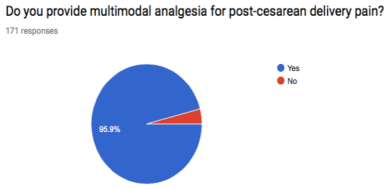
-Badreldin N, Grobman WA, Yee LM. AJOG 2018:219:608.e1-7.

Enhanced Recovery Program: Cesarean

- SOAP - ERAS Cesarean Protocol – Winter 2019
  - Pre-cesarean education/expectation
  - Medications/protocols
  - Decrease opioid usage
  - Early Fluids/mobilization
  - Discharge follow up

- Join SOAP: www.SOAP.org

Enhanced Recovery: Opioid use



ERP Cesarean: Pain and Opioid Use

- Post Cesarean section pain management: PRE ERAS
  - Naproxen 500 mg BID
  - Oxycodone 5mg PO for Pain < 5
  - Oxycodone 10 mg PO for Pain > 5
  - Hydromorphone 0.2-0.4 mg was ordered for intractable pain.
- Post Cesarean section Pain Management ERAS:
  - May 2016 – October 2017
    - Acetaminophen 975mg PO Q 6 hours
    - Alternate with Ketorolac Q 6 hours (30- 15-15-15)
    - Naproxen 500mg BID +Acetaminophen 650 mg TID
  - November 2017-to date
    - Acetaminophen PO 975 mg Q6 + with Ketorolac Q6 hours
    - Acetaminophen 650 mg Q8 hours + Naproxen 500 mg Q 8hours
    - Acetaminophen 650 mg TID and Naproxen BID

-U. Virginia, Tiouririne M

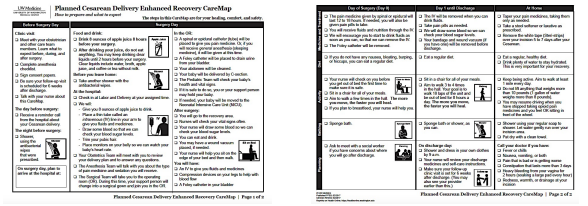
ERP: Opioid Use

Pre ERAS	ERAS Phase 1	ERAS Phase 2
44.7 MME	34 MME	21.7 MME

ERAS: Pain Scores

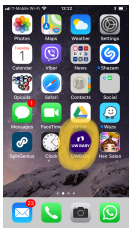
Pre ERAS	ERAS Phase 1	ERAS Phase 2
7.63	7	7.1
3.6	3.2	3.4
4.15	4.2	4.4

- U. Virginia, Tiouririne M



UW ERAS PATHWAY/Care Map
FOR SCHEDULED TERM C-Sections

ERAS Multimedia Education Tool



-Univ Washington app UW Baby

Stergiopoulou A. Methods of Information in Medicine 2007:
The Effect of Interactive Multimedia on Preoperative Knowledge and Postoperative Recovery of Patients Undergoing Laparoscopic Cholecystectomy.

Warning Signs

Call us if you have any of these problems:

- Fever higher than 100.4°F (38°C)
- Chills
- Nausea or vomiting, or both
- Redness, warmth, or drainage at your incision
- Severe pain
- Heavy bleeding from your vagina
- Constipation that lasts more than 3 days

-Univ. Washington cesarean ERAS

-Discoveries 2018, Cedars-Sinai Medical Center

Digital Healthcare Flow

Smart Hospital
- Pre Care
- During Care
- Post Care

Improved Outcomes

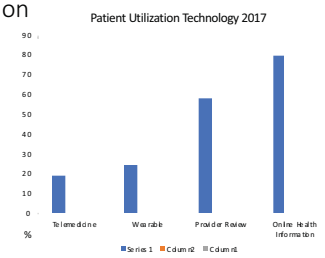
-Frost & Sullivan, Succeeding in Delivery of Value Based Care 2018 Enterprise Ireland

Healthcare Disparities Reduced

Technology/AI support
- Uniform processes
  - Education prenatal - in mom's preferred language, in style of learning that works best for them
  - Metabolic reporting
  - Discharge instructions/Meds
  - Follow ups
- Genomics – therapy tailored
- Pain Medications

Technology Utilization

- Patient Centric
- Empowers Patients
- Information accessible
- Access to care
- Lower healthcare costs



https://rockhealth.com/reports/healthcare-consumers-in-a-digital-transition/

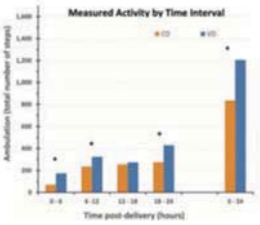
Compliance

- ERAS
- Patient activity
- Medication
- Fluids
- Tracking

-seamless.md

Compliance Activity

Wrist activity device
- Vaginal and cesarean
- Similar pain scores
- Similar opioid consumption



-Ma J. Anesthesiology 2018;128:598-608

Compliance

- Medication
- Ingestible sensor
- Tracking compliance

-abilifymycite.com

Business of Medicine

- Megamergers – vertical integration
  - Walmart, CVS – routine POC
  - CVS – Aetna purchase $69B
  - **Employers are insurer** – 63% risk share 2015
- Brand loyalty for patients
- Amazon, Google – IT
  - Integrated EMR
- Value based model
  - Fee for Service model marginalized
  - Corporate practice of medicine?
  - **Outcomes based contracting**

Insurers

- Sending out health apps
- Expected to be biggest source

Enhanced Recovery Cesarean Implementation

Potential for improved quality in care with cost-savings and decreased LOS

Multidisciplinary Team Consensus

- Pathway Champions
- Patient education/expectation
- Provider education

- Outpatient:
  - Pre-op education/expectation
  - Pre-op carbohydrate loading

- Intra-op: Minimal changes: Easiest

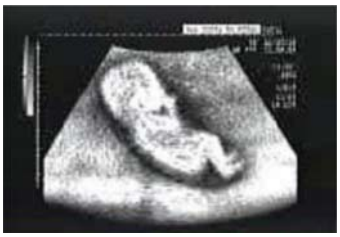
- Post-op:
  - Early feeding
  - Ambulation early, QID; remove barriers (Peds, Lactation, OB)
  - Multimodal pain management; Scheduled Acetaminophen, minimize opioids
  - Discharge planning early

SOAP Member Benefits

Society for Obstetric Anesthesia and Perinatology - SOAP

- Membership benefits
  - All providers – Anesthesiologists, OB, MFM, CRNA, CAA, RN
  - Free for Residents/Fellows
- Best practices Obstetric Anesthesia
- Stay up to date - Advisories
- Lectures
- Friendly community experts willing to help
- Great Value - $250 dues
- Join NOW – www.SOAP.org

Future Tech: Better then FHR



SOAP 50

CELEBRATING 1968-2018

Advancing Care of the Pregnant Patient and Newborn

Learning Objectives

Obstetric Hemorrhage Update

Mark Zakowski, MD, FASA

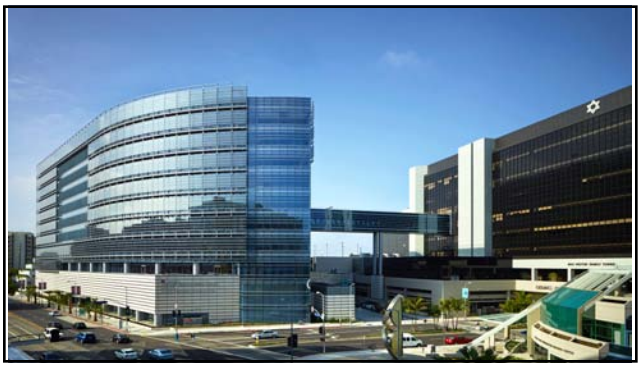
At the completion of this session, the participants will be able to:

- Enable the participants to describe the limitations of EBL and value of QBL
- Diagnose obstetric hemorrhage and order massive transfusion protocol components
- Improve communication to reduce severe maternal morbidity
- Appraise current guidelines obstetric hemorrhage CMQCC and use of TXA

Dr. Zakowski has no financial relationships to disclose. He will not discuss products which he had a role in developing. He will not include a discussion of off label uses of commercial products and/or unapproved investigational use of any product.

Obstetric Hemorrhage 2019

Mark Zakowski, M.D., FASA
Chief, Obstetric Anesthesiology Cedars-Sinai
Immediate Past-President, Society of Obstetric Anesthesia and Perinatology
Past-President, California Society of Anesthesiologists



OUTLINE

Obstetric Hemorrhage

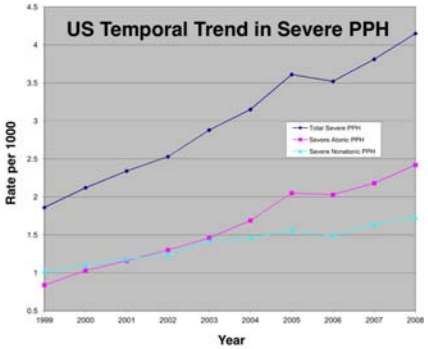
- Recognition
- Current treatment protocols
- Communication – keys to success
- Bonus section

OB Hemorrhage Morbidity

Incidence
- 3% all deliveries
- 1-2% life threatening
- Antepartum Hemorrhage stable

- Morbidity Increased 75% P<.05
  - 129/10,000 deliveries = 52,000/year USA
- Blood transfusion nearly tripled to 96/10,000 P<.05
- Hysterectomy increased 24% to 9.1/10,000, P<.05
- Morbidity increased 114% post-partum re-admit
  - 29/10,000 deliveries

-Callaghan Obstet Gynecol 2012:120:1029-36, CMQCC 2015



Kramer MS. AJOG 2013

Maternal Mortality Hemorrhage

- #1 cause worldwide
- 15% maternal deaths USA
  - 1.8/100k (down from 2.6/100k)
- 70% deaths due to hemorrhage deemed potentially PREVENTABLE

-Berg Obstet Gynecol 2010:117:1302-9
-CMQCC.org

Causes Major OB Hemorrhage

Cause	2012	
	Number	Percentage
Uterine atony	194	57.2
Retained placenta/membranes	81	23.9
Vaginal laceration/haematoma	53	15.6
Bleeding from uterine incision	62	18.3
Abruption	27	8.0
Placenta praevia	24	7.1
Cervical laceration	10	2.9
Morbidity adherent placenta	16	4.7
Broad ligament haematoma	8	2.4

-Scottish Confidential Audit Severe Maternal Morbidity July 2014

Post Partum Hemorrhage Etiology

- Uterine atony
- Laceration genital tract
- Retained placental tissue

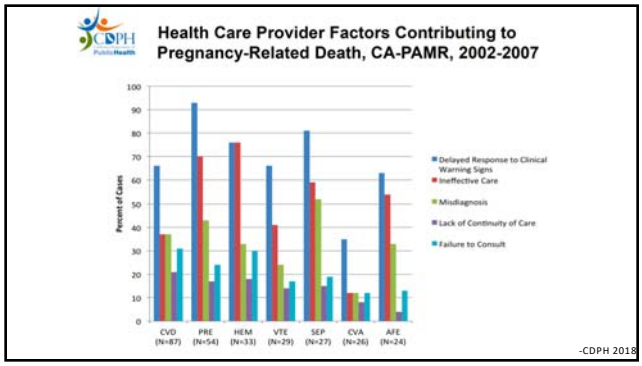
Less common

- Abruption
- Coagulopathy
- Accreta
- Uterine inversion
- Amniotic Fluid Embolism

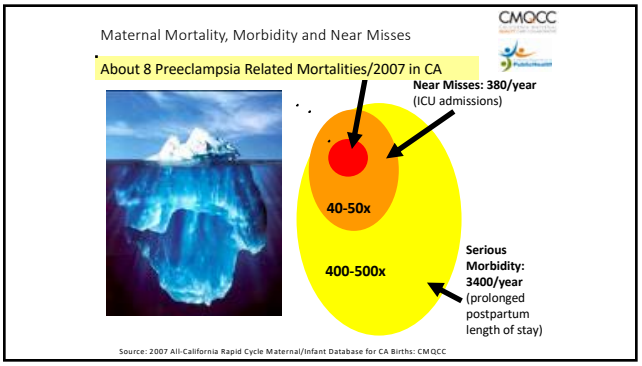
-ACOG PB183 Post Partum Hemorrhage 2017

Uterine Atony Risk Factors

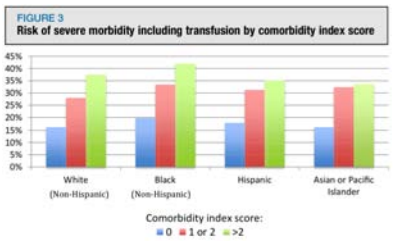
- Prolonged oxytocin >24 h
  - Endogenous or exogenous
- Infection (Chorioamnionitis)
- Uterine abnormality
  - Fibroids
- Over distention
  - Twins, polyhydramnios, macrosomia
- Medications
  - Magnesium, Ca++ channel blocker, potent inhaled anesthetics
- Multiparity
- Prolonged 2nd stage



-CDPH 2018



Risk Factors: Comorbidity and Race



P<.01
Comorbidity Black>White

-Gyamfi-Bannerman C. Am J Obstet Gynecol 2018;219:185.e1-10

Opportunities for Quality Improvement

HEMORRHAGE

Improvement in care opportunities included

- Facility and clinician readiness through practice standardization, better organization of equipment to treat hemorrhage, and planning for care of high risk patients.
- Hemorrhage recognition through better appreciation of blood loss, risk factors, and early clinical signs of deterioration.
- Reducing delays in giving blood, seeking consultations, transferring patients to a higher level of care, and moving on to other treatments if the patient was not responding to current treatment.

-CDPH 2018

OUTLINE

- Obstetric Hemorrhage
- **Recognition**
- Current treatment protocols
- Communication – keys to success
- Bonus section

Post Partum Hemorrhage Risk Assessment

Low Risk	Medium Risk	High Risk
Singleton pregnancy	Prior cesarean or uterine surgery	Previa, accreta, increta, percreta
Less than four previous deliveries	More than four previous deliveries	HCT <30
Unscarred uterus	Multiple gestation	Bleeding at admission
Absence of postpartum hemorrhage history	Large uterine fibroids	Known coagulation defect
	Chorioamnionitis	History of postpartum hemorrhage
	Magnesium sulfate use	Abnormal vital signs (tachycardia and hypotension)
	Prolonged use of oxytocin	

-ACOG PB183 Post Partum Hemorrhage 2017

OB Hemorrhage: Definition

Staged Blood Loss

- Stage 1
  - Blood loss >500 mL vaginal delivery
  - Blood loss >1000 mL cesarean
- Stage 2
  - Blood loss <1500 mL
- Stage 3
  - Blood loss > 1500 mL

ACOG Post Partum

- >1000 mL/24 h

-CMQCC Hemorrhage Toolkit V2-2015

-ACOG PB 183 2017

OB Hemorrhage Blood Loss

- Estimated Blood Loss (EBL) inaccurate
- Quantitated Blood Loss is in!

Rx:

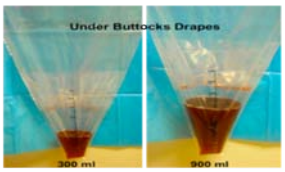
- Graduated markings under buttock drapes
- Weigh sponges/laps
- Training for visual estimation
  - Large blood losses underestimated up to 50%
  - Small blood losses overestimated
- Technology

-Didly Obstet Gynecol 2004:104:601-6
-Toledo Anesth Analg 2007:105:1736-40
-Scavone Anesthesiology 2014:121:439-41

Methods to Estimate Blood Loss

Quantifying blood loss by measuring

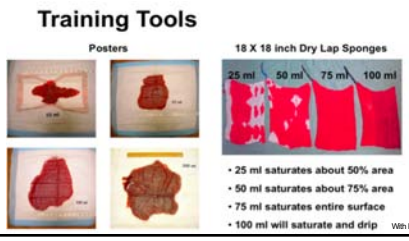
- Use graduated collection containers (C/S and vaginal deliveries)
- Account for other fluids (amniotic fluid, urine, irrigation)



With kind permission of Bev VanderWal, CNS

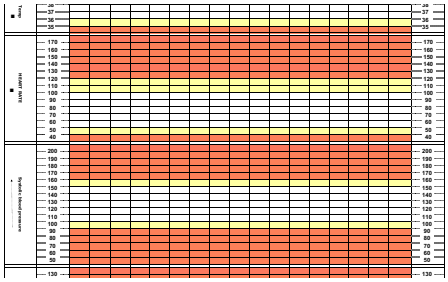
Methods to Estimate Blood Loss

Develop Training Tools: Visual aids displayed in Labor & Delivery and/or Postpartum areas are guides for more accurate visual estimation (visual aids can be displayed discreetly for clinicians)



With kind permission of Bev VanderWal, CNS

MOEW-Mat. OB Early Warning



-NHS UK

MOEW

	1 point	2 points
Pulse	>100 or <50	>120 or <40
SBP	>150 or <100	>160 or <85
SpO2	<94%	<90%
Respiration	>20	>30 or <10
Mental status	Arousable	Unresponsive

2 or more points => call MD to come assess

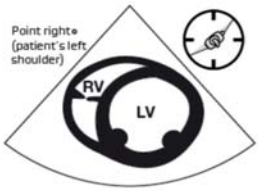
Vitals – Reliability

Blunt Trauma Need to operate/intervene

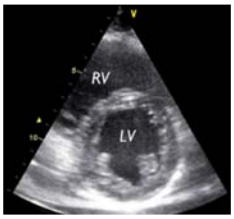
	HR 100-120	HR >120
Sensitivity	37%	13%
Specificity	79%	95%
Intervene	OR 1.8	OR 2.2
Transfuse PRBC	OR 2.2	OR 4.8

-Brasel J Trauma 2007:62:812-7

FATE PSAV



Pos 3: Parasternal LV short axis



-Sloth E., USABCD.org

OUTLINE

- Obstetric Hemorrhage
- Recognition
- **Current treatment protocols 2019**
- Communication – keys to success
- Bonus section

CMQCC V2

Update changes

- Active management 3rd stage labor
  - Oxytocin – no need to wait for cord clamping
- After 2 RBC – 1:1 FFP:RBC
- Optimize –
  - Calcium, acidosis, hypothermia
  - Factor VII has little support
- Support family needs

-CMQCC.org

Active Management 3rd stage Labor

- Oxytocin after delivery infant –OLD
  - NEW- after delivery shoulder!
- Vigorous fundal massage
  - Continued (NEW)
- Decreased Post Partum Hemorrhage (PPH) - 60%
- Okay to use with Delayed Cord Clamping

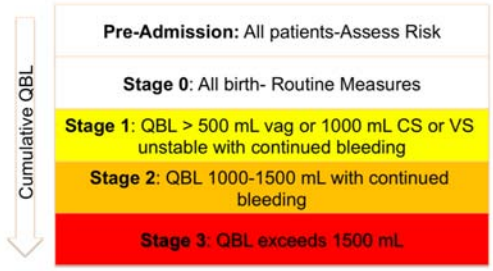
-Prendiville Cochrane Database Syst Rev 2000:3:CD000007
-Hoffman AJOG 2006
-CMQCC Hemorrhage Toolkit V2- 2015

Non-Blood Component

- Liberal Crystalloid/colloid, minimize blood – OLD
- Massive hemorrhage – transfuse blood early - NEW
- Minimize Cystalloid/colloid – NEW
- Cystalloid limit 3.5 L, 2L if blood available right away
- Crystalloid limit 2L,Colloid 1.5 L prior to blood

-Abdul-Kadir Transfusion 2014:54:1756-68
-Scottish Confidential Audit Severe Maternal Morbidity July 201

Hemorrhage Guidelines: Staged Responses



-CMQCC 2015

Stage 1: Actions

- Call for help –
  - OB, Anesthesiologist, Charge RN
- Activate OB Hemorrhage Protocol
- 2nd IV, fluids, Cross match, Uterotonics
- DDx – consider all options

IV Gauge and Rapid Transfuser

Gauge IV	Flow (gravity) mL/min	Flow (rapid transfuser) mL/min
20	65	
18	140	250
16	190	350
14	300	500
18 +PRBC	15 min	6 min standard rapid transfuser
14 Central line		500-1000 mL/min (Belmont)

Stage 2: Actions

- Additional uterotonics
- Labs, transfuse PRBC on clinical signs
  - Do NOT wait for labs
- FFP if >2 PRBC
- Rapid transfusion equipment helpful
- DDx
- If Vitals worse then expected - laparotomy

Stage 3: Actions

- Move to OR if not already there
- Surgical consult
- Massive transfusion protocol
- Additional lines
- Surgical treatment – hysterectomy should be considered

OB Hemorrhage 2019

- Repeat labs q30 min
- Monitor ionized Calcium
- Normothermia
  - $1^{o}C$ –> 10% drop clotting factor activity
- Fibrinogen 100-125 mg/dL
  - Cryo 6-10 Unit needed if <100
- FFP:RBC 1:1 after 2nd RBC
- Platelets for stage 3 hemorrhage

Post Partum Hemorrhage

- 1% low risk women have severe PPH
- BP, P unreliable until late 25% blood volume loss
- > 1000 mL/24 h
- Active Management 3rd stage labor:
  - Oxytocin 10 U
  - Uterine massage
  - Umbilical cord traction
  - 3-25% need 2nd uterotonic in PPH

-ACOG PB183 Post Partum Hemorrhage 2017

Post Partum Hemorrhage Uterotonics

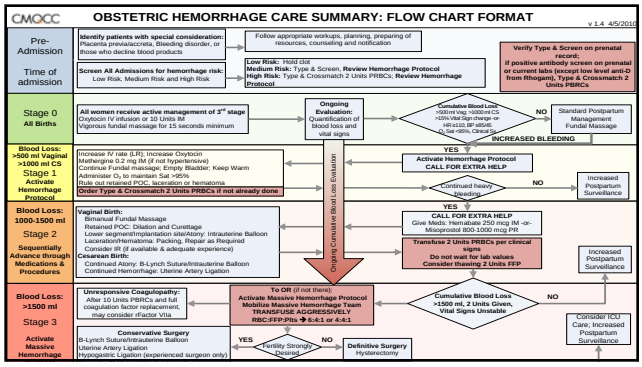
Drug*	Dose and Route	Frequency	Contraindications	Adverse Effects
Oxytocin	IV: 10–40 units per 500–1,000 mL as continuous infusion or IM: 10 units	Continuous	Rare, hypersensitivity to medication	Usually none. Nausea, vomiting, hyponatremia with prolonged dosing. Hypotension can result from IV push, which is not recommended.
Methylergonovine	IM: 0.2 mg	Every 2–4 h	Hypertension, preeclampsia, cardiovascular disease, hypersensitivity to drug	Nausea, vomiting, severe hypertension particularly when given IV, which is not recommended
15-methyl $PGF_{2\alpha}$	IM: 0.25 mg Intramyometrial: 0.25 mg	Every 15–90 min, eight doses maximum	Asthma. Relative contraindication for hypertension, active hepatic, pulmonary, or cardiac disease	Nausea, vomiting, diarrhea, fever (transient), headache, chills, shivering hypertension, bronchospasm
Misoprostol	600–1,000 micrograms oral, sublingual, or rectal	One time	Rare, hypersensitivity to medication or to prostaglandins	Nausea, vomiting, diarrhea shivering, fever (transient), headache

-ACOG PB183 Post Partum Hemorrhage 2017

Post Partum Hemorrhage: Mechanical

- Intrauterine balloon
- Extrauterine compression suture
  - B-Lynch 60-75% success
- Decrease blood flow to uterus
  - Uterine artery ligation
  - Hypogastric/Internal iliac ligation
  - Interventional radiology – identify source, embolize
- Removal uterus - hysterectomy

-ACOG PB183 Post Partum Hemorrhage 2017



PPH Blood Transfusion

- Start early, don't need labs
- TXA
  - 1 gram IV, early to benefit
- Whole blood equivalent
  - After 2 PRBC, 1:1 PRBC: FFP
- Fibrinogen decreases early

PPH Fibrinogen

Dx: Pregnancy elevated 3.7-6.2 g/L
- 1 gL/L decrease = 2.6x severe PPH
- >4g/L 79% negative predictive value
- <2g/L 100% positive predictive value

Rx
- FFP limited fibrinogen (2U FFP -> +0.4 g/L)
- Cryoprecipitate pooled, 200-250 fibrinogen
- Fibrinogen Concentrate, 60mg/kg -> +100 mg/dL

-Abbassi-Ghanavati M Obstet Gynecol 2009:114:1326, Charbit B. J Thromb Haemostasis 2007:5:266, DeLloyd L Int J Obstet Anesthesia 2011:20:135, Seto S. IJOA 2017:32:11, Snegovskikh D. JCA 2018:44:50

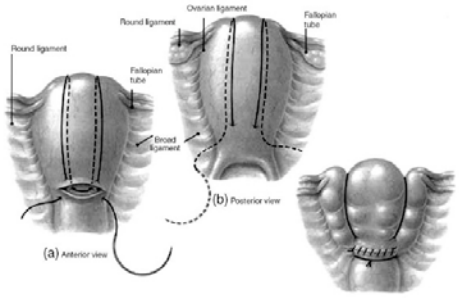
Surgical Strategies

Method	No. Cases	Success Rates (%)	95% CI (%)
B-Lynch/compression sutures	108	91.7	84.9–95.5
Arterial embolization	193	90.7	85.7–94.0
Arterial ligation/pelvic devascularization	501	84.6	81.2–87.5
Uterine balloon tamponade	162	84.0	77.5–88.8

There was no statistically significant difference between the 4 groups (P = 0.06).

Doumouchtsis S, et al. Obstetr Gynecol Surv 2007; 62: 540-7.

B-Lynch compression suture



Tranexamic Acid (TXA)

- Anti-fibrinolytic
- 1 gram IV, then 1gm/8 hr OR redose Q4-8 hr
- Improved survival trauma hemorrhage
- WHO recommended list
- Trauma – improved survival, reduced adverse events

-Shakur Lancet 2010:376:23-32
-WHO recommendation prevention PPH 2007
-BMJ 2012:345:e5839, Health Tech Asses 2013:17:10

TXA WOMAN Trial: applicability?

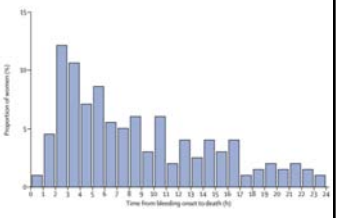
WOMAN cohort
- 346 PPH deaths/6 yr
- 20,060 deliveries
- NNT=250 women
- Many countries, different systems, disease burden

- Australian Cohort
- 11 PPH deaths/5 yr
- 1.5 million deliveries
- NNT=35,587 women

"…TXA should not be used routinely for obstetric hemorrhage in women from high income countries"
– Dennis AT and Griffiths JD, Lancet 2017:390:1582

TXA Delay

Meta-analysis
- TXA improved survival
  - OR1.2, P=0.001
- TXA delay reduces benefit
  - P=0.0001
- Immediate Rx survival
  - OR 1.7, p=0.0001
- 15 min delay = ↓10% survival benefit until 3hr
- >3h – no benefit



-Gayet-Ageron A. Lancet 2018:391:125-32.

Viscoelastrography PPH

- Fibtem A5 low predicted >2500 mL loss

Pregnancy baseline
- Lower: INTEM CT, INTEM CFT, EXTEM CFT
- Higher: INTEM 11%, EXTEM 11%, FIBTEM 47%

-Seto S. IJOA 2017:32:11, Snegovskikh D JCA 2018:44:50, Mallaiah S. Anaesthesia 2015:7:166

Viscoelastography OB Hemorrhage

- Impact study, 2yr
- PPH >1500 mL
- Point of care ROTEM
- Better outcomes
- Less blood
- Less cost

	PCVT	Non-PCVT	P
Hct POD1	24.7	27.8	0.004
Hys	25%	53%	0.013
EBL ml	2000	3000	0.001
RBC >1u	36%	90%	0.001
FFP	11%	72%	0.001
Cryo	21%	19%	NS
Plt	0%	45%	0.001
ICU	3.6%	43%	0.001
LOS days	4	5	0.001
Cost	$11,800	$20,400	0.001

-Snegovskikh D., Norwitz ER. J Clinical Anesthesia 2018:44:50-6

OUTLINE

- Obstetric Hemorrhage
- Recognition
- Current treatment protocols 2014-15
- **Communication – keys to success**
- Bonus section

Preventability Maternal Morbidity: Communication

Closed Claims: **60% communication lapses**

-Dutton Anesthesiology 2014:121:450-8
-Scavone Anesthesiology 2014:121:439-41

Severe Maternal Morbidity

	Preventable	Improved care needed	Total
Diagnosis/Recognition Risk	31%	21%	52%
Treatment	37%	35%	71%
Communication	26%	17%	43%
Policies/Procedures	28%	16%	44%

-Lawton AJOG 2014:210:557.e1-6.

Communication

- Predelivery huddle – identify at risk patients
- QBL – measure/weigh
- Call for help, activate Hemorrhage Protocol
  - Equipment
  - Blood products
- Recognize Denial
- Recognize Delays

Communication Strategies

- "Open-air" commands - common error
  - Always direct to someone
- Close the loop – acknowledge
- Multidisciplinary Team Drills
- Leadership
  - Have clear leader of team

-Lipman SOAP Consensus Anesth Analg 2014:118:1003-16

OUTLINE

- Obstetric Hemorrhage
- Recognition
- Current treatment protocols 2014-15
- Communication – keys to success
- **Bonus section**

Comprehensive Maternal Hemorrhage Protocols Reduce the Use of Blood Products

	BEFORE Intro. (2 mos)	5 mos AFTER Intro. (2 mos)	10 mos AFTER Intro. (2 mos)	Difference (BEFORE vs. 10mos AFTER)
Total Deliveries	10,433	10,457	11,169	+7%
Stage II Hemorrhage (per 1,000 births)	7.0	9.5	9.6	+37%
Stage III Hemorrhage (per 1,000 births)	2.7	3.1	4.8	+77%
PRBC (N)	232	189	197	-15% (p=0.02)
Total Blood Prod (includes coags) (N)	375	354	297	-25% (p<0.01)
TBP per 1,000 births	35.9	33.9	26.6	-27% (p<0.01)

Slide by CMQCC

Shields et al AJOG 2014 (29 hospitals)

Placenta Accreta

- Advanced center
- Delivery at 34-35 weeks
- Ultrasound 80-90% sensitivity, 95% specificity
- MRI 88% Sensitivity, 100% Specificity

Invasive Placenta Guideline IS-AIP 2019

- Incidence worldwide increasing
  - 0.8-3.1/1000 birth prior cesarean
- Optimize Hb 28 weeks
- Delivery 36 weeks if stable/elective
- Arterial balloon prophylactic
  - No benefit, some complications
- Expectant management 60-93% successful
  - 6% severe maternal morbidity
  - No scheduled interventional radiology

-Collins SL. Guideline Int Society abnormally-invasive placenta AJOG 2019: in press

4 Domains of Patient Safety Bundles

- **Readiness**
- **Recognition and Prevention**
- **Response**
- **Reporting/Systems Learning**

Slide 29

Partnership for Maternal Safety

Readiness every unit
- Hemorrhage cart, supplies, checklist
- Uterotonics on unit
- Response team
- Blood bank support massive transfusion protocols
- Drills/simulations

-www.safehealthcareforeverywoman.org, Main EK Anest Analg 2015

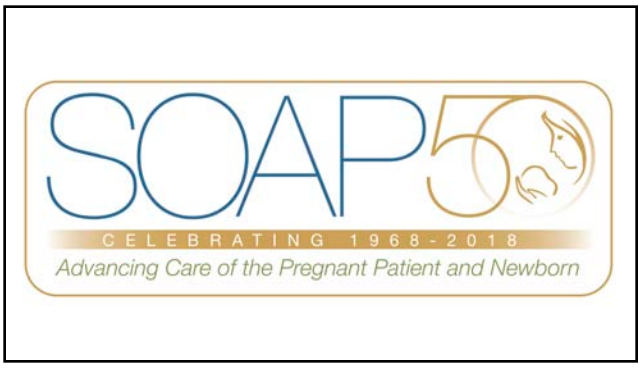
Partnership for Maternal Safety

Recognition
- Risk assessment
- Measure blood loss (Quantitated)
- Active management 3rd stage

Response
- Team based

Reporting and systems
- Multidisciplinary review
- Debriefs/huddles

-www.safehealthcareforeverywoman.org, Main EK Anest Analg 2015


SOAP50
CELEBRATING 1968-2018
Advancing Care of the Pregnant Patient and Newborn

Learning Objectives

Let's Talk Law with Anesthesiologists

Josceyln Hughes, JD

At the completion of this session, the participants will learn:

- What to know about being sued: Standard of Care- Expert Affidavit
- What to do after a bad outcome or after being sued
- Problems with Electronic Medical Records
- What is admissible evidence and why it is important to know

Ms. Hughes has no financial relationships to disclose. She will not discuss products which she had a role in developing. She will not include a discussion of off label uses of commercial products and/or unapproved investigational use of any product.

Let's Talk Law with Anesthesiologists

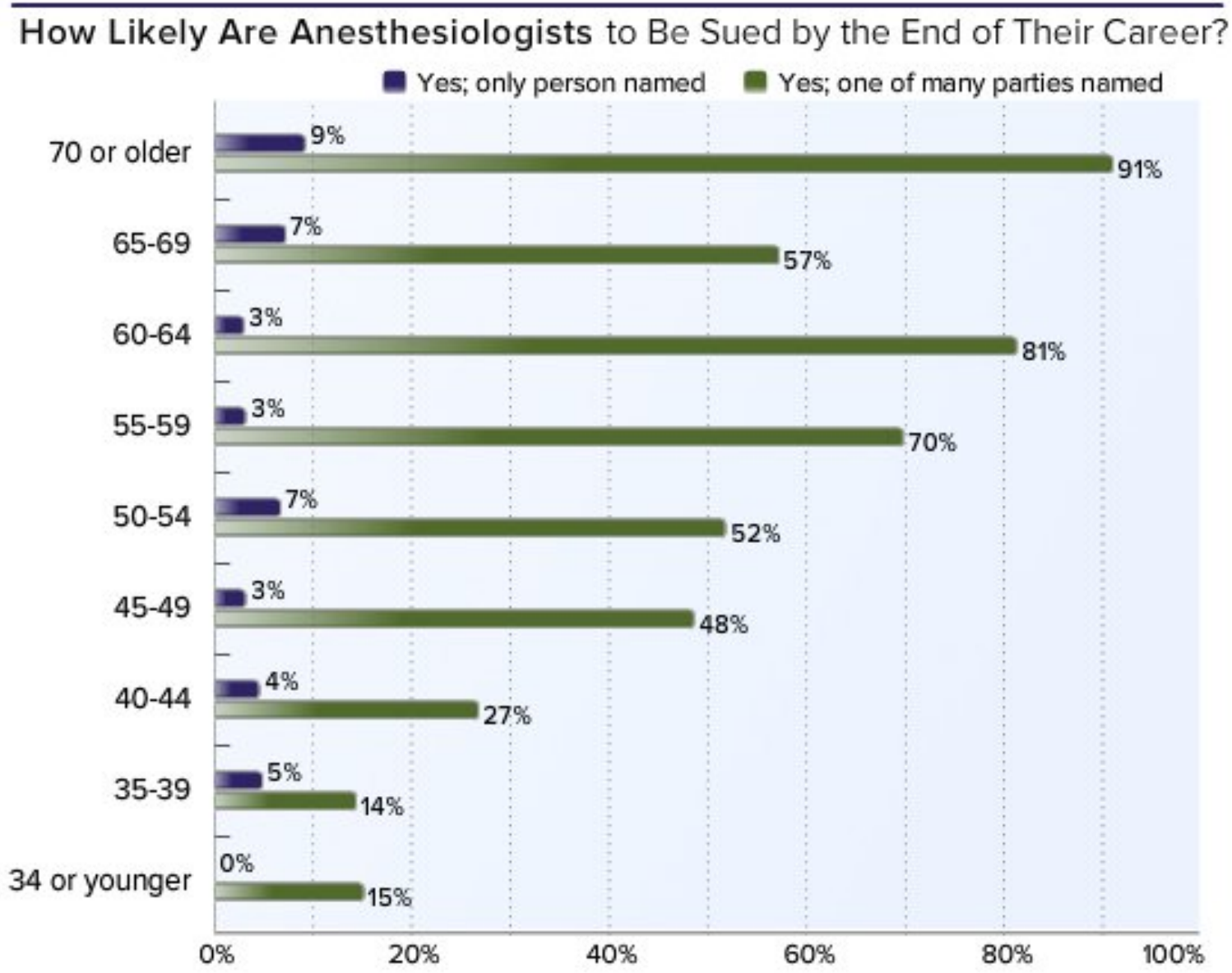
Joscelyn M. Hughes, Esq.

Allen & McCain, P.C.
Two Midtown Plaza, Suite 1700
1349 W. Peachtree St, N.W.
Atlanta, Georgia 30309
(404) 874-1700

Litigation Background

- Medical malpractice is when a doctor or other health care provider treats a patient in a manner that deviates from the medical standard or care, and the patient suffers harm as a result.

- Please know that residents and fellows can be separately named as defendants in medical malpractice claims along with the attendings.



https://www.medscape.com/features/slideshow/malpractice-report-2015/anesthesiology

O.C.G.A. 9-11-9.1 – Expert Affidavit

(a) In any action for damages alleging professional malpractice against:

(1) A professional licensed by the State of Georgia and listed in subsection (g) of this Code section;

(2) A domestic or foreign partnership, corporation, professional corporation, business trust, general partnership, limited partnership, limited liability company, limited liability partnership, association, or any other legal entity alleged to be liable based upon the action or inaction of a professional licensed by the State of Georgia and listed in subsection (g) of this Code section; or

(3) Any licensed health care facility alleged to be liable based upon the action or inaction of a health care professional licensed by the State of Georgia and listed in subsection (g) of this Code section,

the plaintiff shall be required to file with the complaint an affidavit of an expert competent to testify, which affidavit shall set forth specifically at least one negligent act or omission claimed to exist and the factual basis for each such claim.

What is the standard of care?

- The degree of care and skill ordinarily employed by the profession generally under similar conditions and like surrounding circumstances.

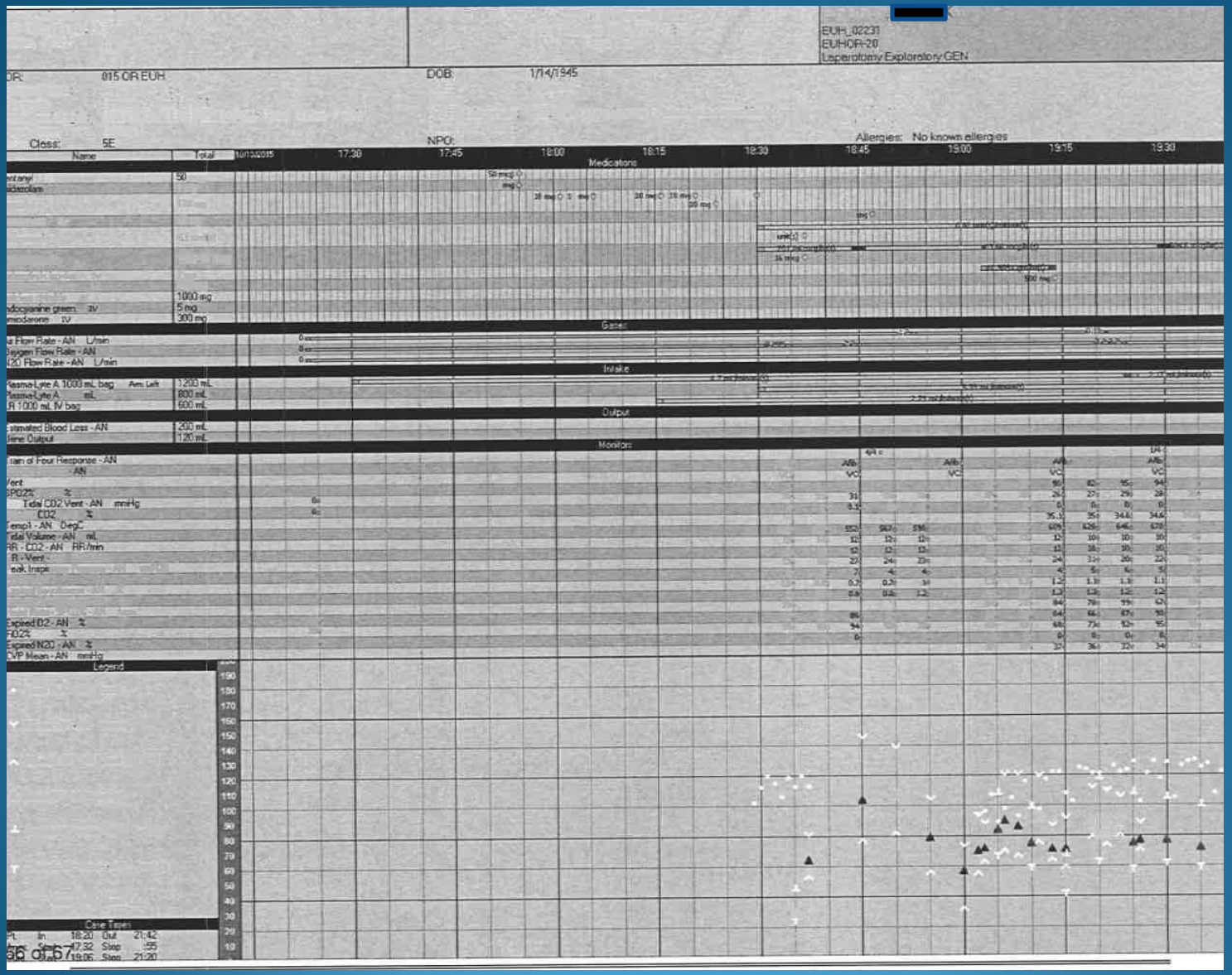
- This is a NATIONAL standard.

Example of Anesthesia Expert Affidavit

- Affiant states that, based upon his review of the records referenced herein, and upon his education, knowledge, training and experience as an anesthesiologist specializing in the administration of general anesthetics, specializing in the supervision and care of patients who are under the influence of a general anesthetic, including patients who sustain surgical complications and/or injuries, including blood loss, during surgery, and Affiant's familiarity with the applicable standard of care ordinarily exercised by health care providers generally under the same or similar conditions and like surrounding circumstances, it is his opinion, with a reasonable degree of medical certainty, that the anesthesiologist departed from the standard of care in the treatment rendered to patient in that he...

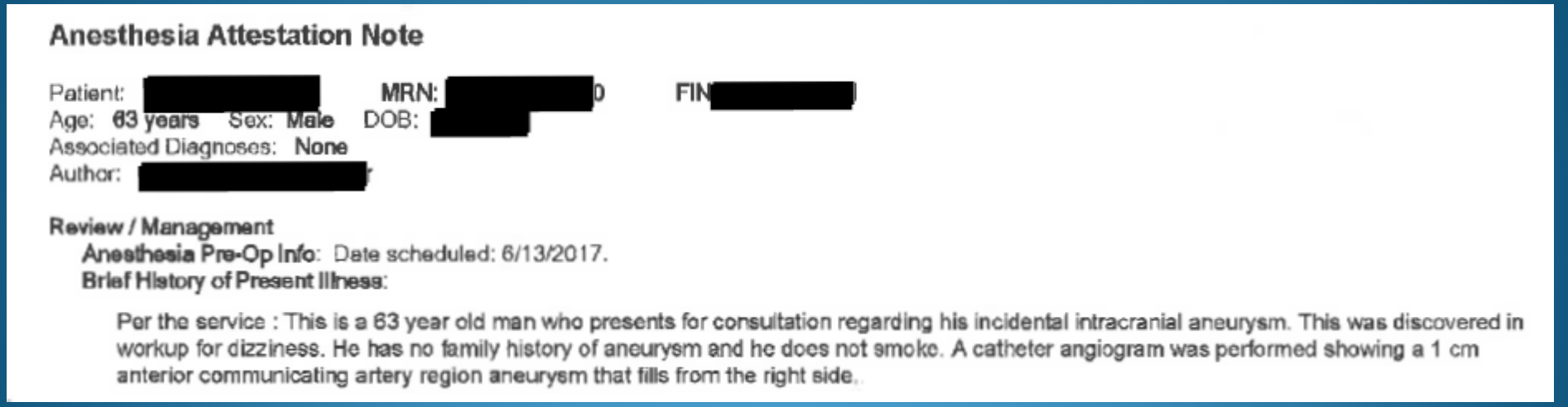
- (1) failed to take adequate measures to resuscitate her during her total hip replacement surgery after she experienced blood loss following the injury to her superficial femoral vein.
- (2) failed to take earlier and more frequent arterial blood gases and complete blood counts duiing the total hip replacement surgery.
- (3) failed to use additional peripheral intravenous lines to resuscitate her during her total hip replacement surgery.
- (4) failed to stop the surgery until the patient had been satisfactorily resuscitated and her metabolic status returned to approaching normal values.

Study the medical records



Problems with Electronic Medical Records

- It is easy to copy and paste.
  - It is repeated over and over in the medical records.
  - It is not always accurate information.
  - "I" becomes "you"



Anesthesia Attestation Note

Patient: [redacted] MRN: [redacted] FIN [redacted]
Age: 63 years Sex: Male DOB: [redacted]
Associated Diagnoses: None
Author: [redacted]

Review / Management
Anesthesia Pre-Op Info: Date scheduled: 6/13/2017.
Brief History of Present Illness:

Per the service : This is a 63 year old man who presents for consultation regarding his incidental intracranial aneurysm. This was discovered in workup for dizziness. He has no family history of aneurysm and he does not smoke. A catheter angiogram was performed showing a 1 cm anterior communicating artery region aneurysm that fills from the right side.

- The quick and easy drop down boxes.
  - This turns your brain on auto pilot.
  - Often times you can add more.

What can you testify about in a lawsuit?

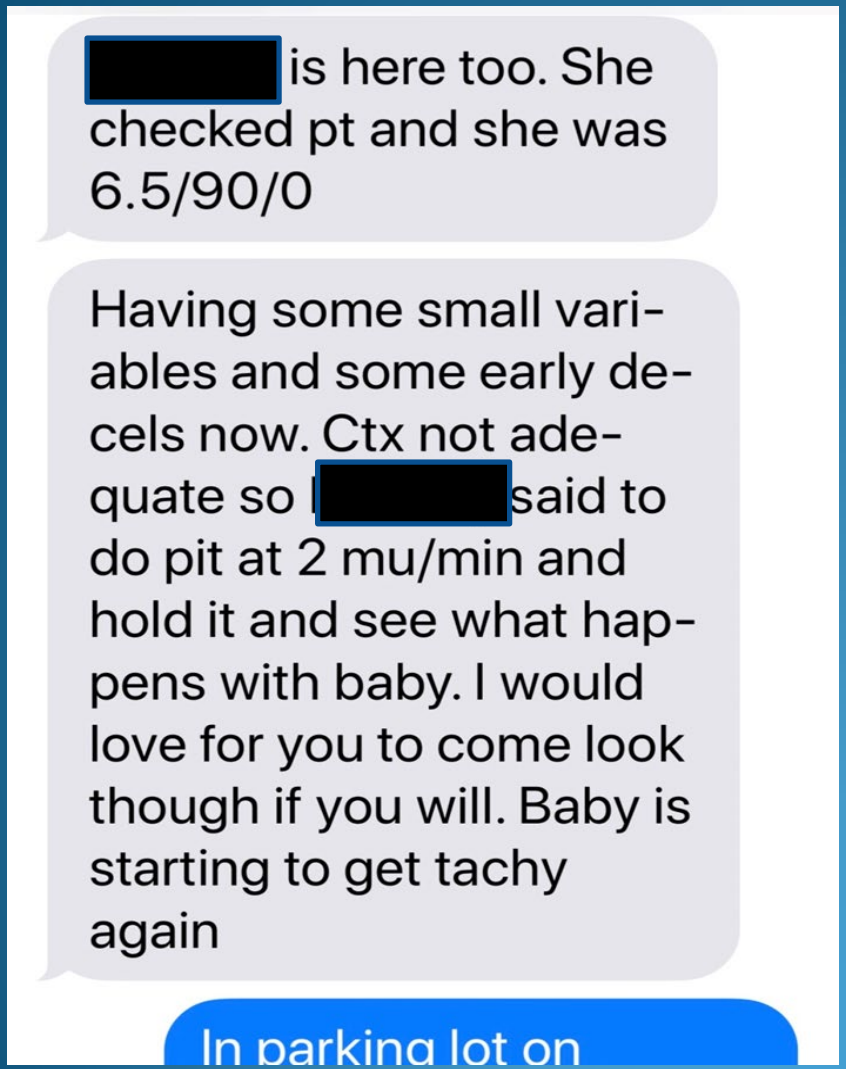
- You can testify about your personal knowledge.
- You can testify about your routine practice.
- You can refresh your recollection by reviewing the medical records and testify about your knowledge of the facts after review of the records.

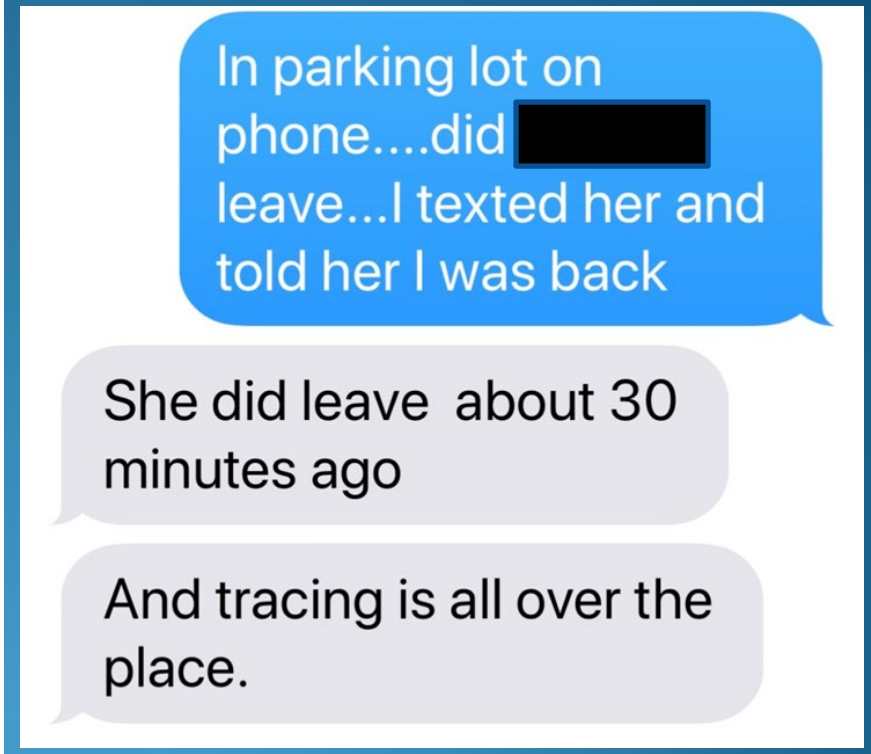
What is Privileged?

- Attorney – Client
- Husband – Wife
- Clergyman (Priest/Rabbi)
- Psychiatrist/Psychologist – patient

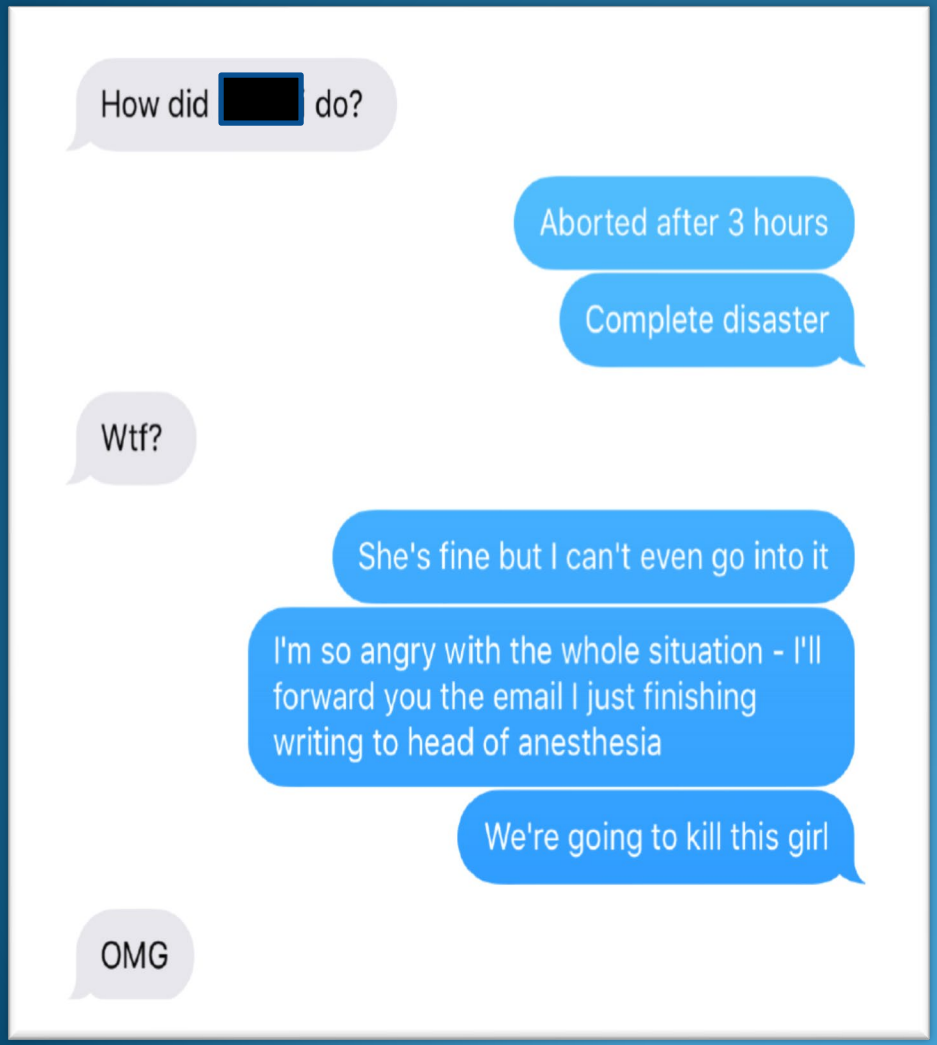
- Peer-Review – O.C.G.A. 31-7-133
- (a) Except in proceedings alleging violation of this article, the proceedings and records of a review organization shall be held in confidence and shall not be subject to discovery or introduction into evidence in any civil action; and no person who was in attendance at a meeting of such organization shall be permitted or required to testify in any such civil action as to any evidence or other matters produced or presented during the proceedings or activities of such organization or as to any findings, recommendations, evaluations, opinions, or other actions of such organization or any members thereof.

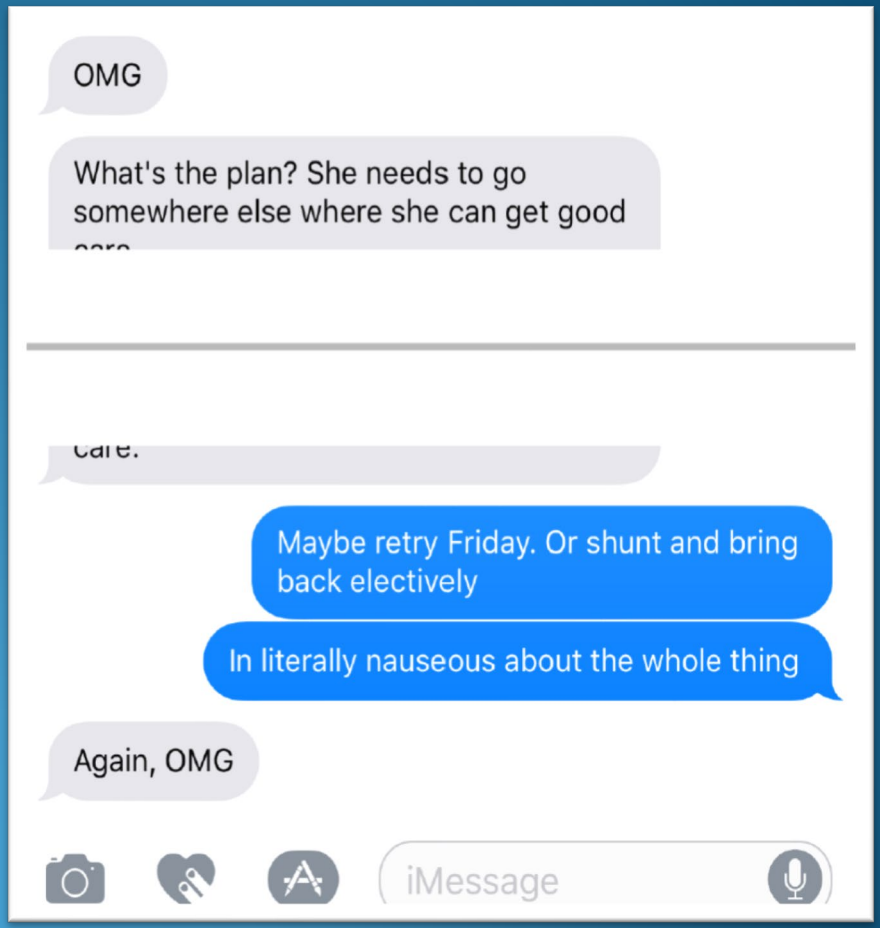
What's not privileged? Text Messages

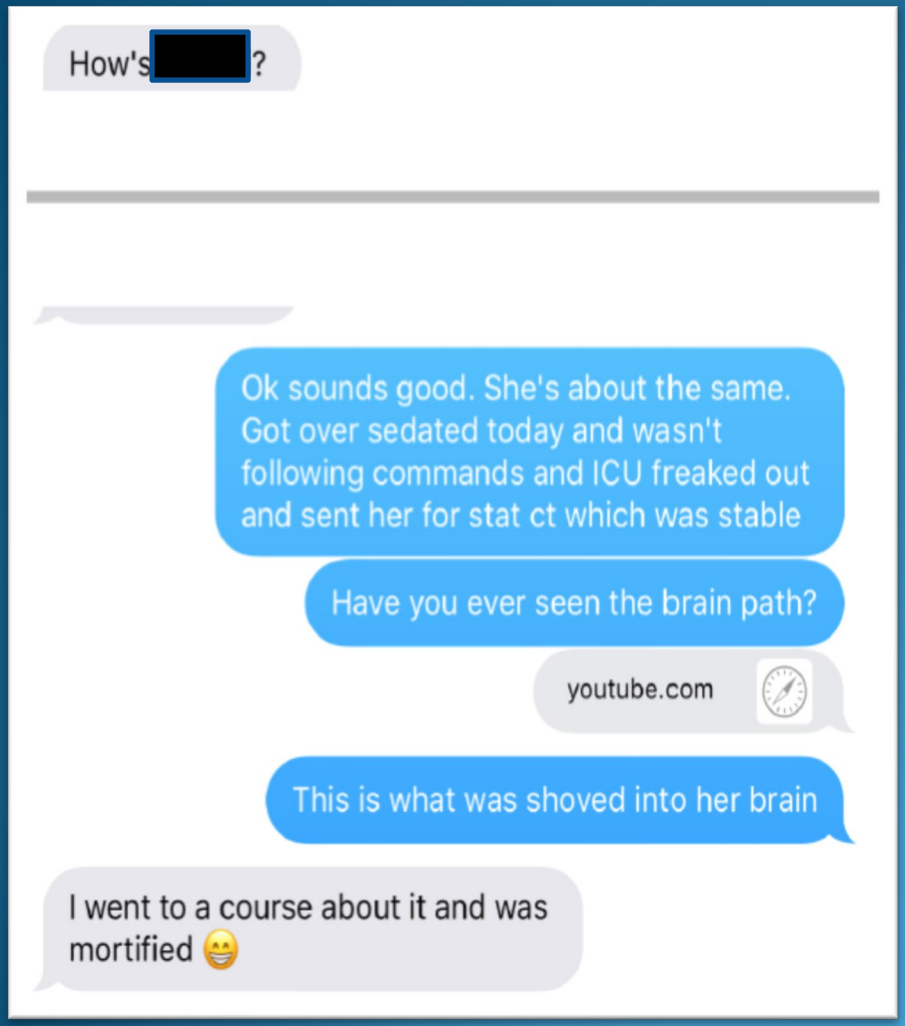


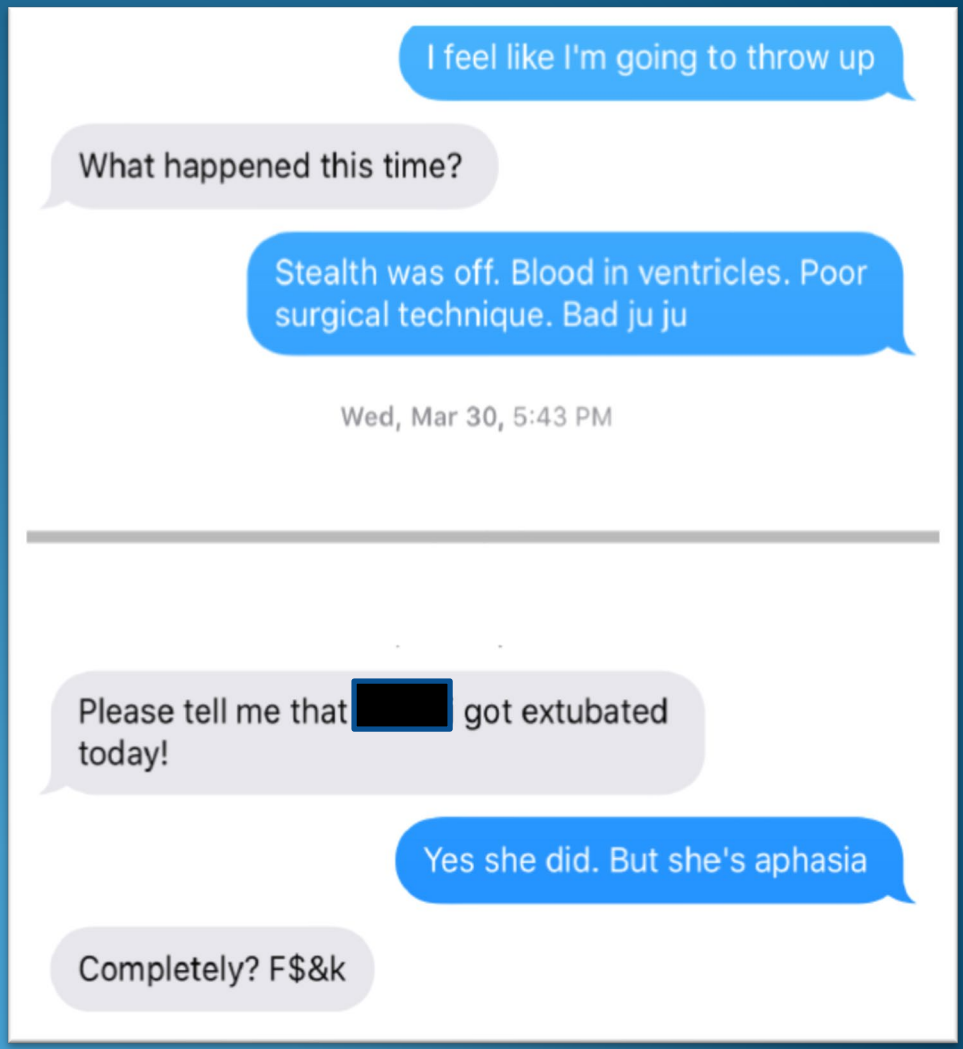


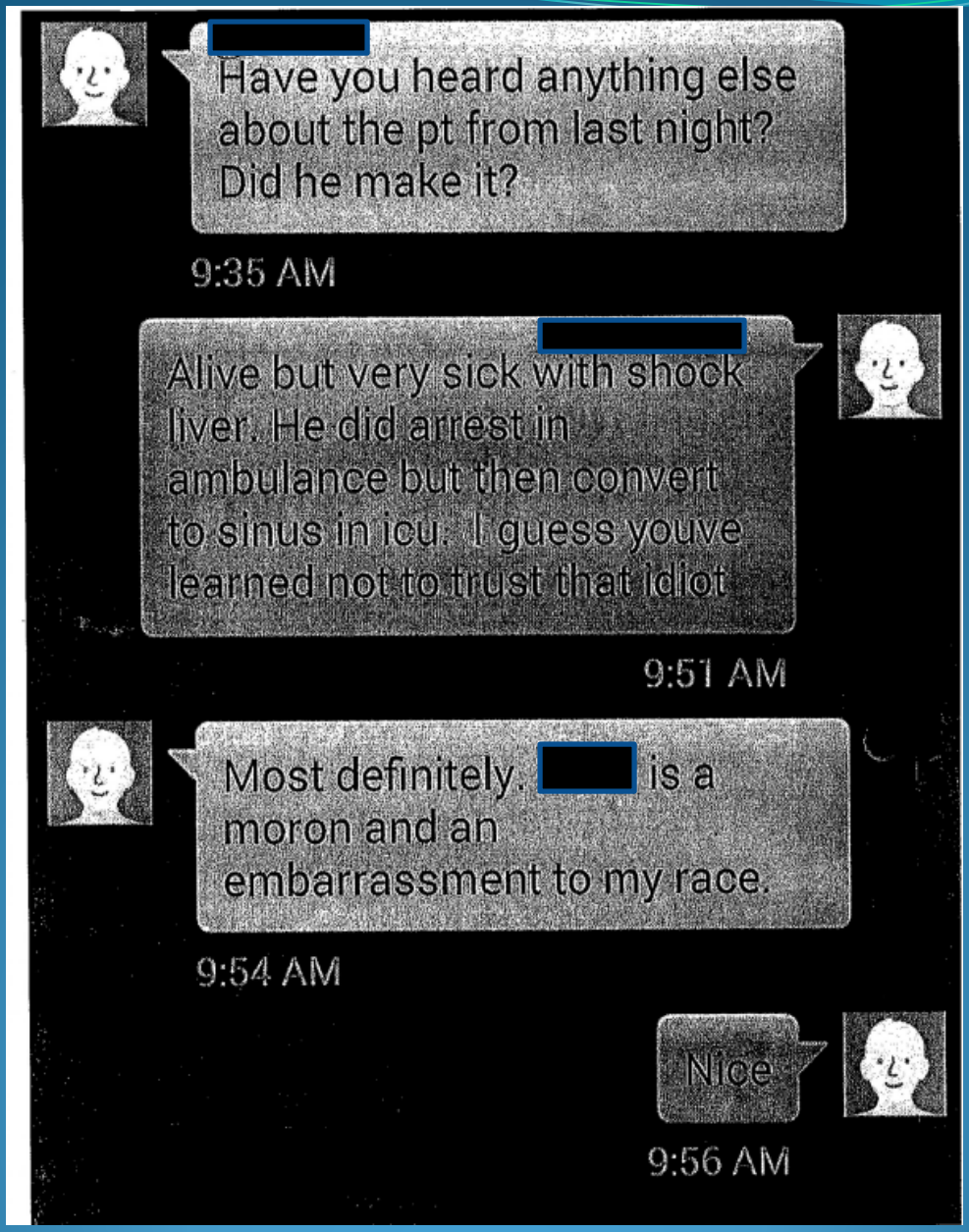
What's not? Text Messages






How's [redacted]?
Ok sounds good. She's about the same. Got over sedated today and wasn't following commands and ICU freaked out and sent her for stat ct which was stable
Have you ever seen the brain path?
youtube.com
This is what was shoved into her brain
I went to a course about it and was mortified


I feel like I'm going to throw up
What happened this time?
Stealth was off. Blood in ventricles. Poor surgical technique. Bad ju ju
Wed, Mar 30, 5:43 PM
Please tell me that [redacted] got extubated today!
Yes she did. But she's aphasia
Completely? F$&k


[redacted]
Have you heard anything else about the pt from last night? Did he make it?
9:35 AM
[redacted]
Alive but very sick with shock liver. He did arrest in ambulance but then convert to sinus in icu. I guess youve learned not to trust that idiot
9:51 AM
Most definitely. [redacted] is a moron and an embarrassment to my race.
9:54 AM
Nice
9:56 AM

E-mails

From: [redacted]
Date: [redacted]
To [redacted]
Subject: RE: [redacted] **ICU sign out**

Hi [redacted]
Attached the sign out.
Apparently bed 1 now has a blown pupil. I asked [redacted] for a stat head CT and for her to call radiology to get him in. We recently had trouble with timely CT scans necessitating calling code strokes to get a patient to the CT.

Thank you-

[redacted]

Audio Recordings

- Under Georgia law, specifically O.C.G.A. § 16-11-66, you can record a conversation in Georgia if you are a party to the conversation without the knowledge or consent of the other party. This can be either on the phone or in any public or private place. The recordings will likely be admissible evidence at any hearing.

Audio Recordings

M.D.: Okay? So, that's a lot of information and most of what I have said is in the negative or depressing category. There is good news. We got through a very, very, very challenging operation, very trying, one of the hardest ones, certainly in these repairs that I have ever done, you know. His blood pressure is fine. We caused gases, acid level, his potassium and all that are doing okay. His heart is doing fine. His lungs are doing fine, so there are a lot of things in the plus category as well.

Wife: Okay.

M.D.: And we just need to support him now as his body heals from this.

Daughter: Are we in any with all of this, like tonight? I mean, I don't know like the terms, but is anything critical?

M.D.: Yes. I tried to, that's your dad, right?

Daughter: Yes.

M.D.: I mean, we were very frank with each other about this. This is always a difficult conversation because you don't want to be overly negative or dramatic, on the other hand, you know, we need to be realistic about what we are dealing with. So, is there a chance that he will take a turn for the worst tonight? Yes. Is there is a chance that he will not survive? Yes. We are not out of the woods by any means. The timeframe right now is basically hour-to-hour. We worry about (1) bleeding, (2) bleeding, (3) bleeding.

Daughter: Oh.

M.D.: Once we get sort of through tonight, you know, assuming that is not a problem, we start then looking at kidneys. We have given him probably 25, 26 Cell Savers.

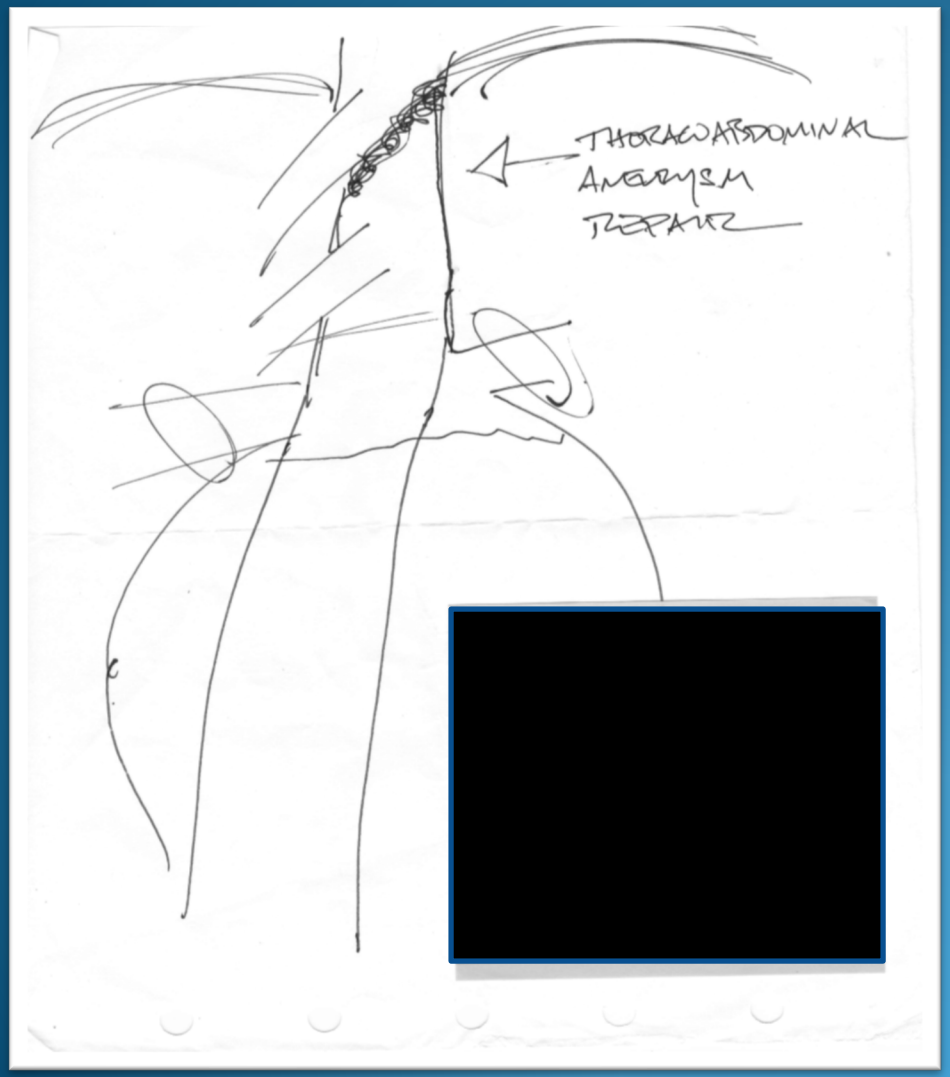
Fellow: We've got 10 units of blood, Cell Savers, and 22 liters of fluid.

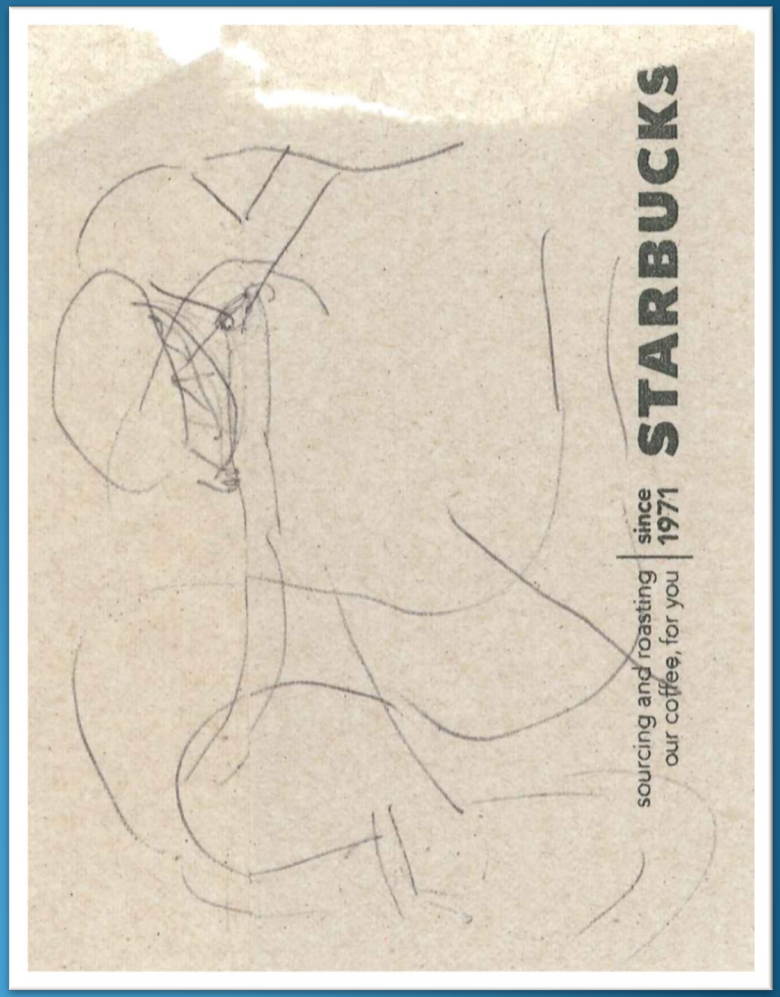
M.D.: He has gotten 20, close to 30 liters of fluid, if you can image that. All that fluid will go to his lungs and we've got to get that fluid off. If his kidneys can't get it off on their own then we will need to dialyze him to get that fluid off. But then it becomes tricky because for him to maintain his blood pressure he needs the fluid, so the lungs don't want the fluid, the rest of his body does want the fluid and you kind of play this balancing game. Alright?

Daughter: Huh-huh.

M.D.: I don't think the paralysis will be as much of an issue based on where we clamped, but we will obviously wake him up and do that. So, lots of issues to deal with.

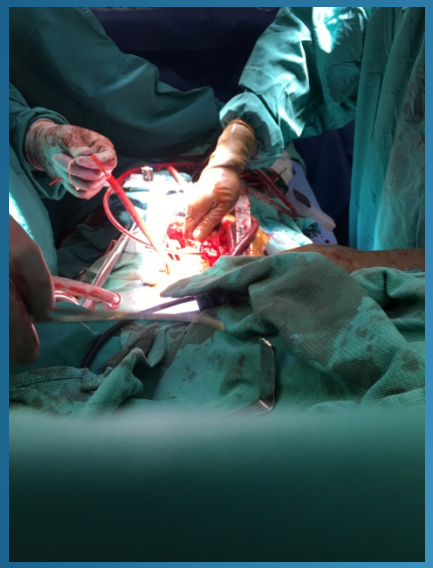
Hand Drawing

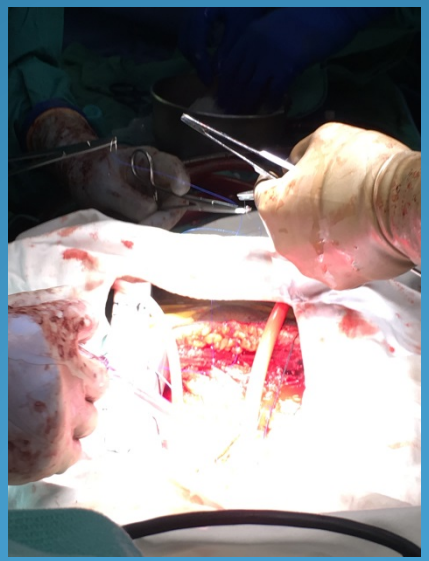


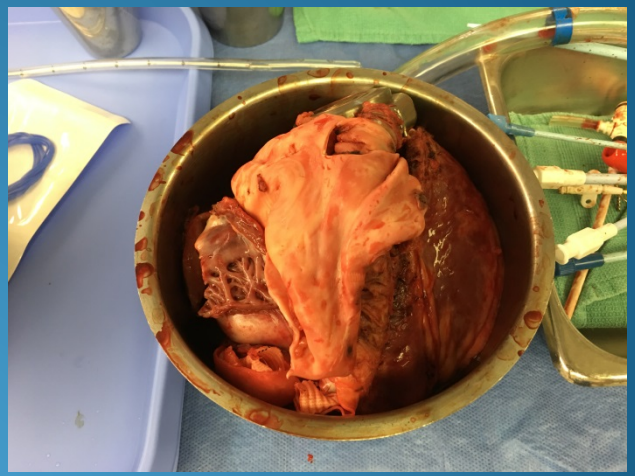


Phones in the Operating Room

- https://www.wsbtv.com/news/2-investigates/doctor-who-made-music-videos-in-operating-room-facing-several-malpractice-suits/751266828

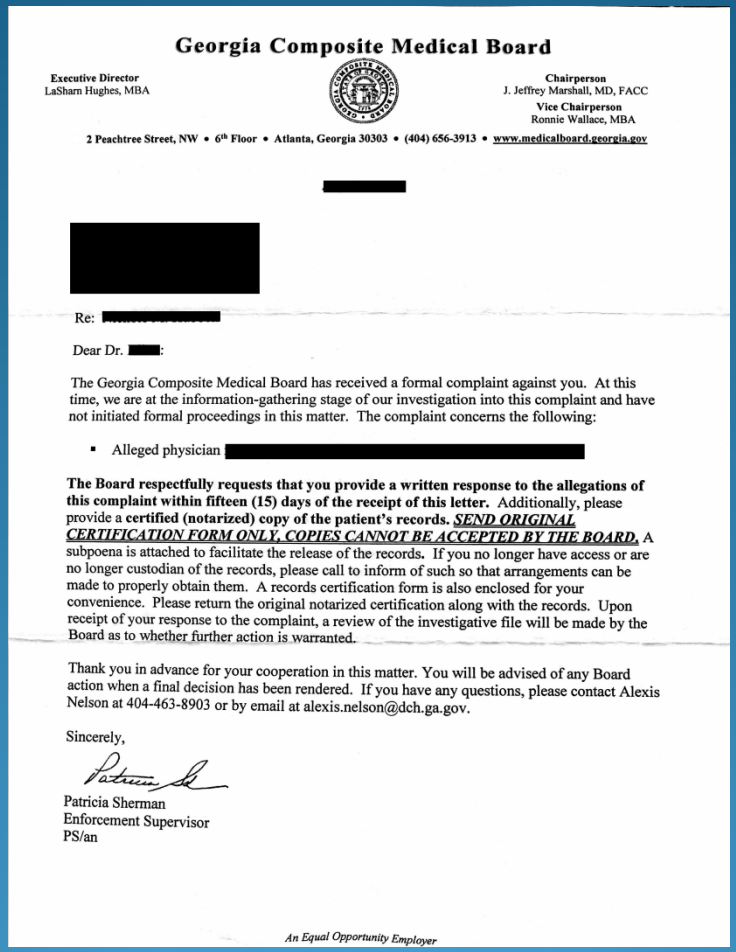






Social Media

Georgia Composite Medical Board



Georgia Composite Medical Board

Executive Director
LaSharn Hughes, MBA

Chairperson
J. Jeffrey Marshall, MD, FACC
Vice Chairperson
Ronnie Wallace, MBA

2 Peachtree Street, NW • 6th Floor • Atlanta, Georgia 30303 • (404) 656-3913 • www.medicalboard.georgia.gov

[redacted]

[redacted]

Re: [redacted]

Dear Dr. [redacted]:

The Georgia Composite Medical Board has received a formal complaint against you. At this time, we are at the information-gathering stage of our investigation into this complaint and have not initiated formal proceedings in this matter. The complaint concerns the following:

- Alleged physician [redacted]

The Board respectfully requests that you provide a written response to the allegations of this complaint within fifteen (15) days of the receipt of this letter. Additionally, please provide a **certified (notarized) copy of the patient's records.** ***SEND ORIGINAL CERTIFICATION FORM ONLY. COPIES CANNOT BE ACCEPTED BY THE BOARD.*** A subpoena is attached to facilitate the release of the records. If you no longer have access or are no longer custodian of the records, please call to inform of such so that arrangements can be made to properly obtain them. A records certification form is also enclosed for your convenience. Please return the original notarized certification along with the records. Upon receipt of your response to the complaint, a review of the investigative file will be made by the Board as to whether further action is warranted.

Thank you in advance for your cooperation in this matter. You will be advised of any Board action when a final decision has been rendered. If you have any questions, please contact Alexis Nelson at 404-463-8903 or by email at alexis.nelson@dch.ga.gov.

Sincerely,

Patricia Sherman
Enforcement Supervisor
PS/an

An Equal Opportunity Employer

O.C.G.A. § 43-34A-6

- **§ 43-34A-6. Right to file grievance with state board; display of declaration of rights in waiting rooms; board review of complaints; inclusion in physician profile**
- The patient or any person that the board deems to have a legitimate interest has the right to file a grievance with the board concerning a physician, staff, office, or treatment received.
- A declaration of the patient's rights shall be prominently displayed in conspicuous language in the physician's waiting room. This declaration may be contained in the same notice as the right to obtain physician profiles. The declaration of rights shall contain the following statement:
- "The patient has the right to file a grievance with the Georgia Composite Medical Board concerning the physician, staff, office, and treatment received. The patient should either call the board with such a complaint or send a written complaint to the board. The patient should be able to provide the physician or practice name, the address, and the specific nature of the complaint."
- Such notice shall include the current phone number and address of the board.
- The board must review every complaint received to determine if there is sufficient evidence to warrant an investigation according to a procedure established by board regulation. Only investigated complaints upon which the board has taken disciplinary action shall be included in a physician's profile. The board must take the appropriate action as set forth in the regulations promulgated by the board. The board must respond in writing to the complaint within 60 days. In the response, the board shall inform the person whether the complaint is being referred for investigation, and if the complaint has been investigated, the results of the investigation or whether further investigation is required, and any board action taken.
- THIS IS CONFIDENTIAL; IT IS NOT PUBLIC KNOWLEDGE.

GA Composite Medical Board Discipline

- Close the matter
- Letter of concern
- Private Consent Order
- Public Consent Order

Take Home Points

- GA law requires an expert affidavit.
- The standard of care is at the national level.
- Anesthesia medical records are crucial to the defense of your case.
- Most communications are NOT privileged; be careful with what you say and what you type.
- Social Media can be dangerous.
- GA Medical Board is not out to get you.

Learning Objectives

Expiratory Central Airway Collapse, Anesthetic Implication

Ricardo Diaz Milian, MD

At the completion of this session, the participants will be able to:

- Review the anatomy of the central airways
- Define Expiratory Central Airway Collapse
- Recognize intra-operative central airway collapse
- Summarize the anesthetic management for Tracheobronchoplasty

Dr. Milian has no financial relationships to disclose. He will not discuss products which he had a role in developing. He will not include a discussion of off label uses of commercial products and/or unapproved investigational use of any product.

Expiratory Central Airway Collapse, Anesthetic Implications

Ricardo Diaz Milian MD

Assistant Professor, Anesthesiology and Perioperative Medicine
Augusta University

June 30, 2019

Objectives

- Review the anatomy and physiology of the central airways
- Define Expiratory Central Airway Collapse and its anesthetic implications
- Discuss the management of intra-operative airway collapse
- Outline the anesthetic management of Tracheobronchoplasty

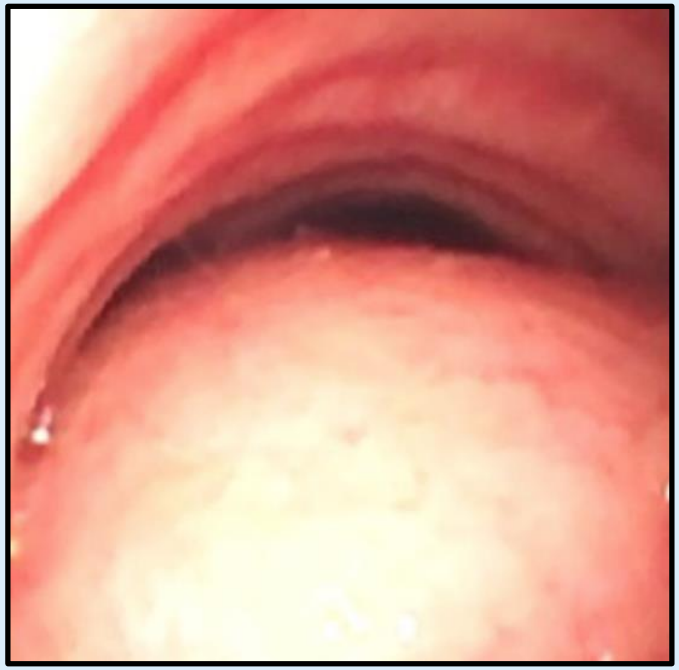
Acknowledgements

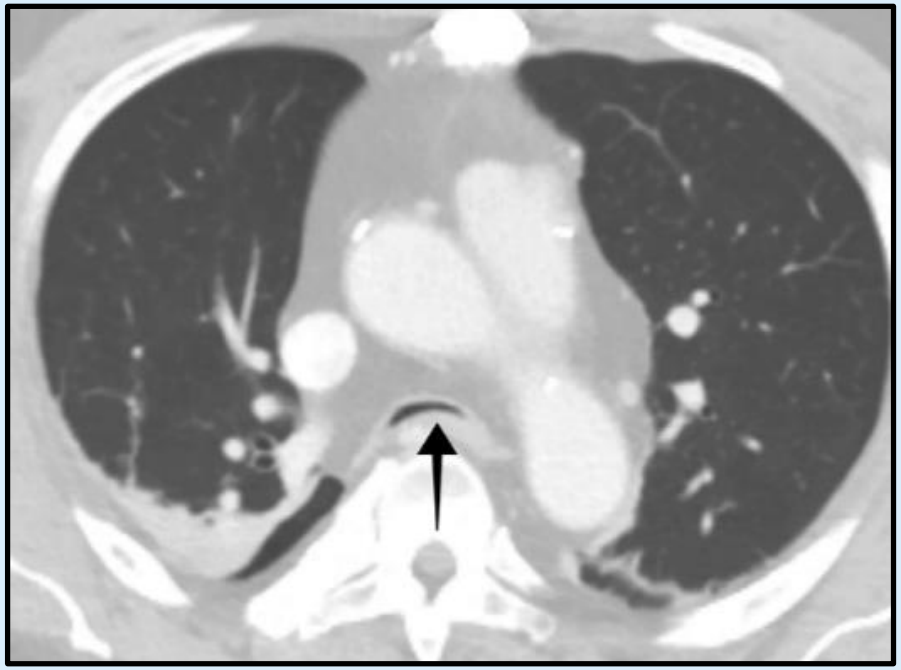
- Edward Foley MD
- Maria Bauer MD
- Andrea Martinez-Velez MD
- Manuel Castresana MD
- Sunni Losito (Medical Illustrator)

Disclosures

- Boston Medical, provided a photograph of a DUMON Y airway-stent.

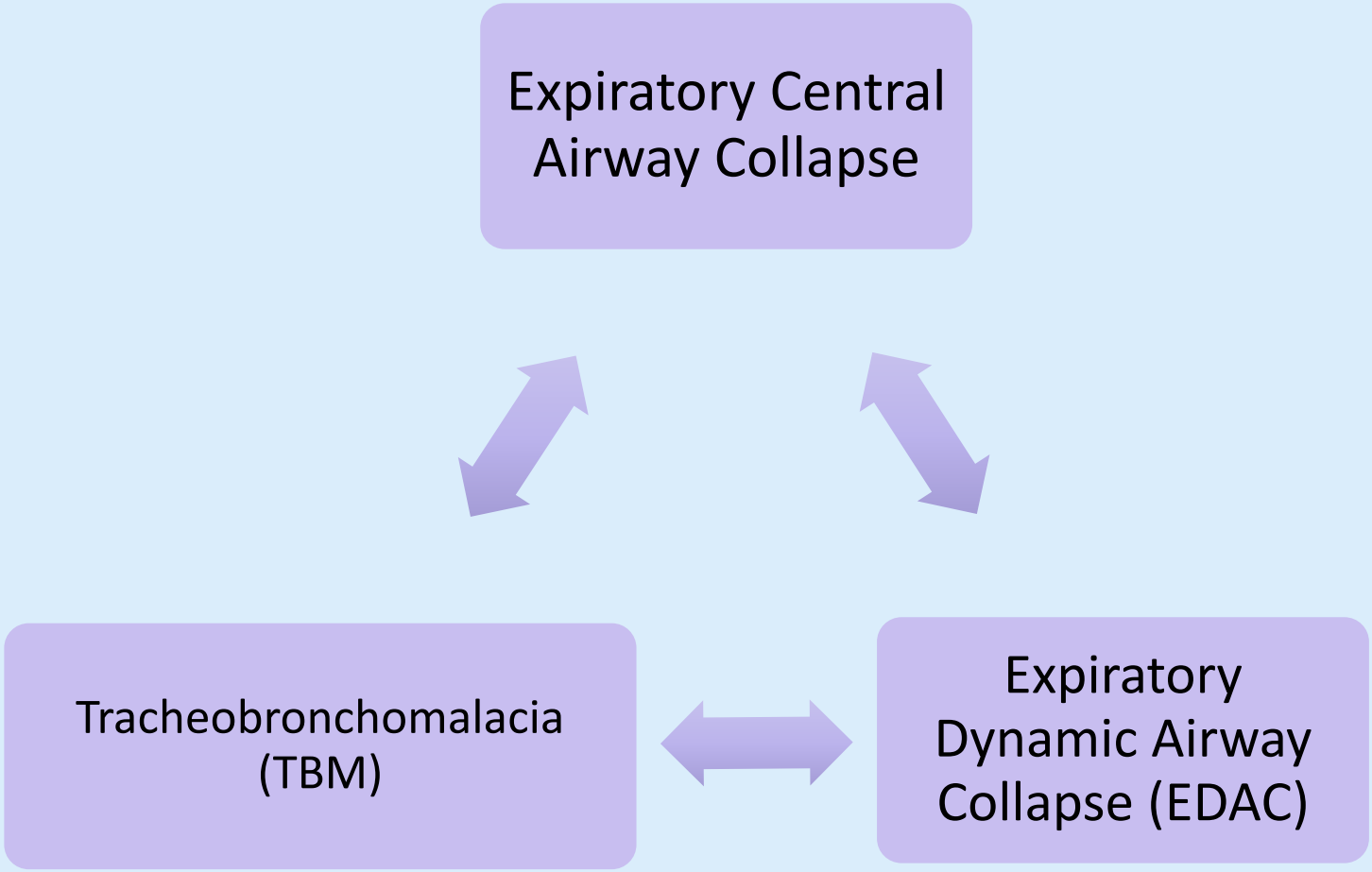
Unexpected Airway Collapse



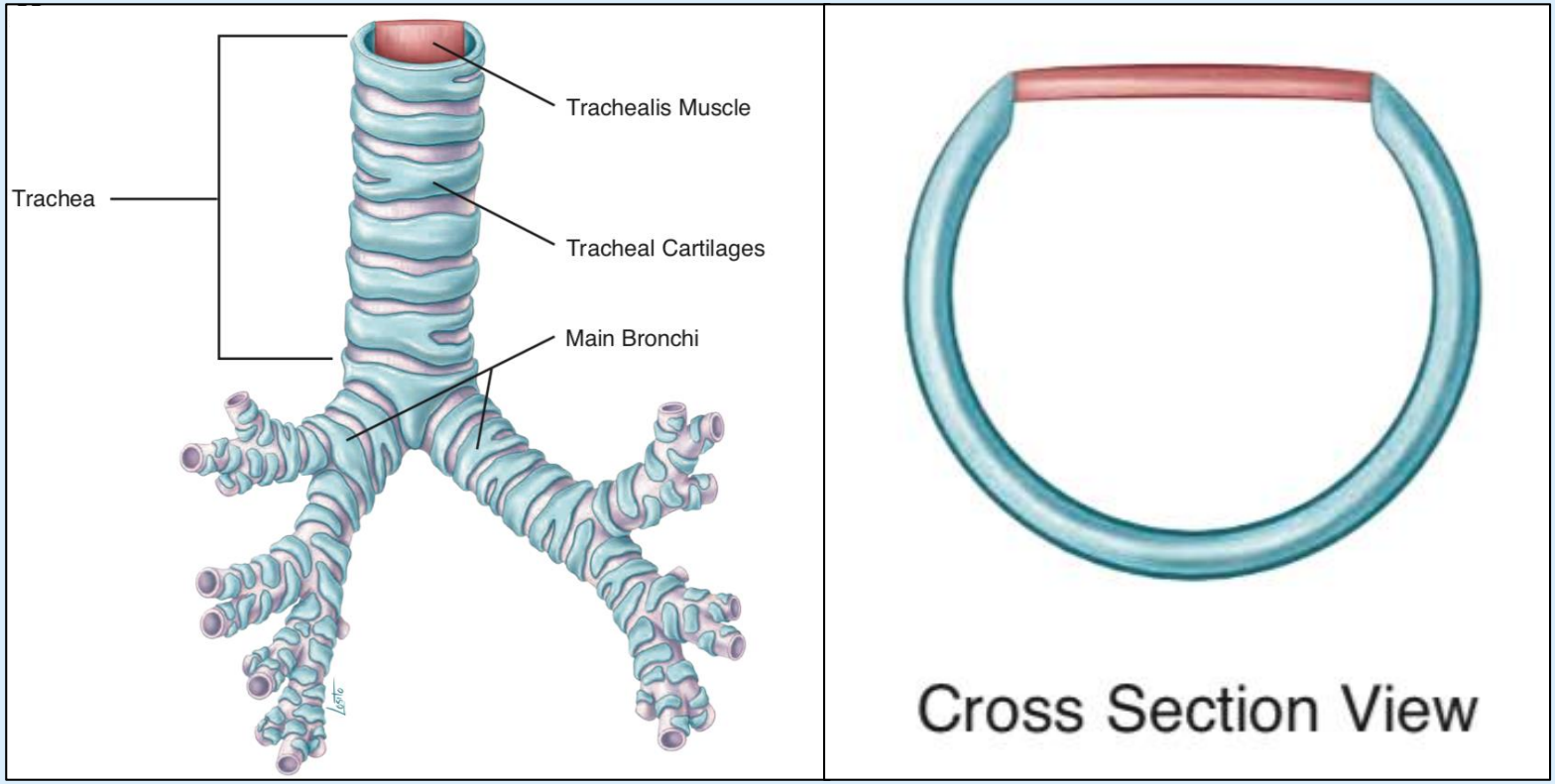


Diaz Milian R, Castresana MR. Recurrent Failure of Positive-Pressure Ventilation: Machine Malfunction or a Rare, Unexpected Cause? *J Cardiothorac Vasc Anesth* 2017; 32:2029-2030

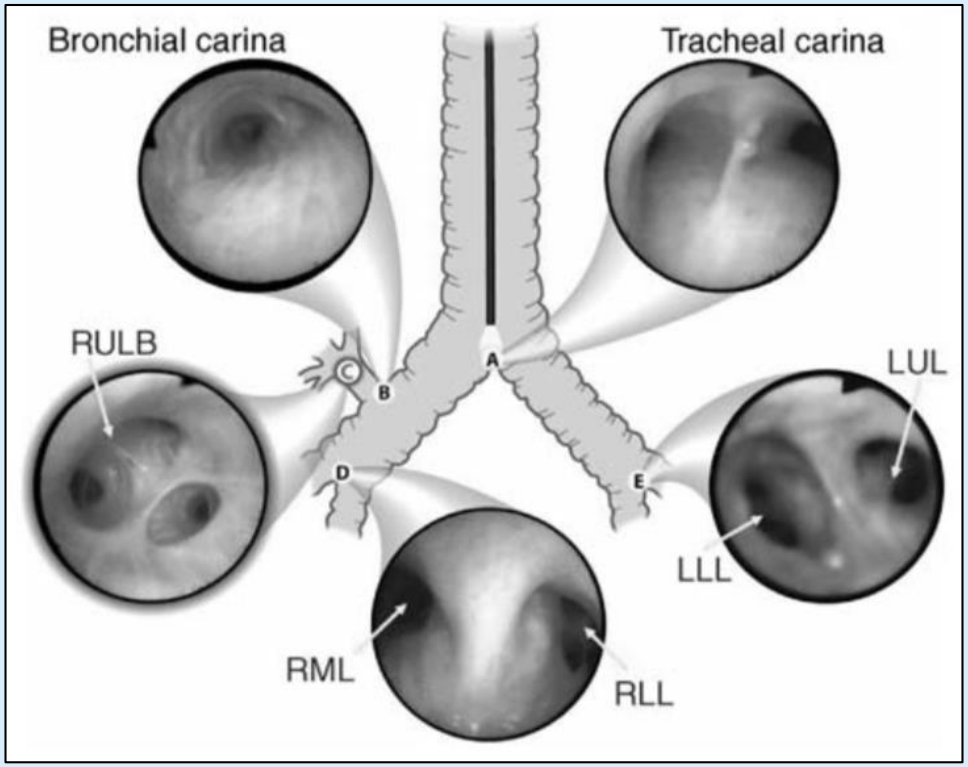
Definition


Expiratory Central Airway Collapse
Tracheobronchomalacia (TBM)
Expiratory Dynamic Airway Collapse (EDAC)

Anatomy of the Central Airways



Bronchoscopic Anatomy of the Airway

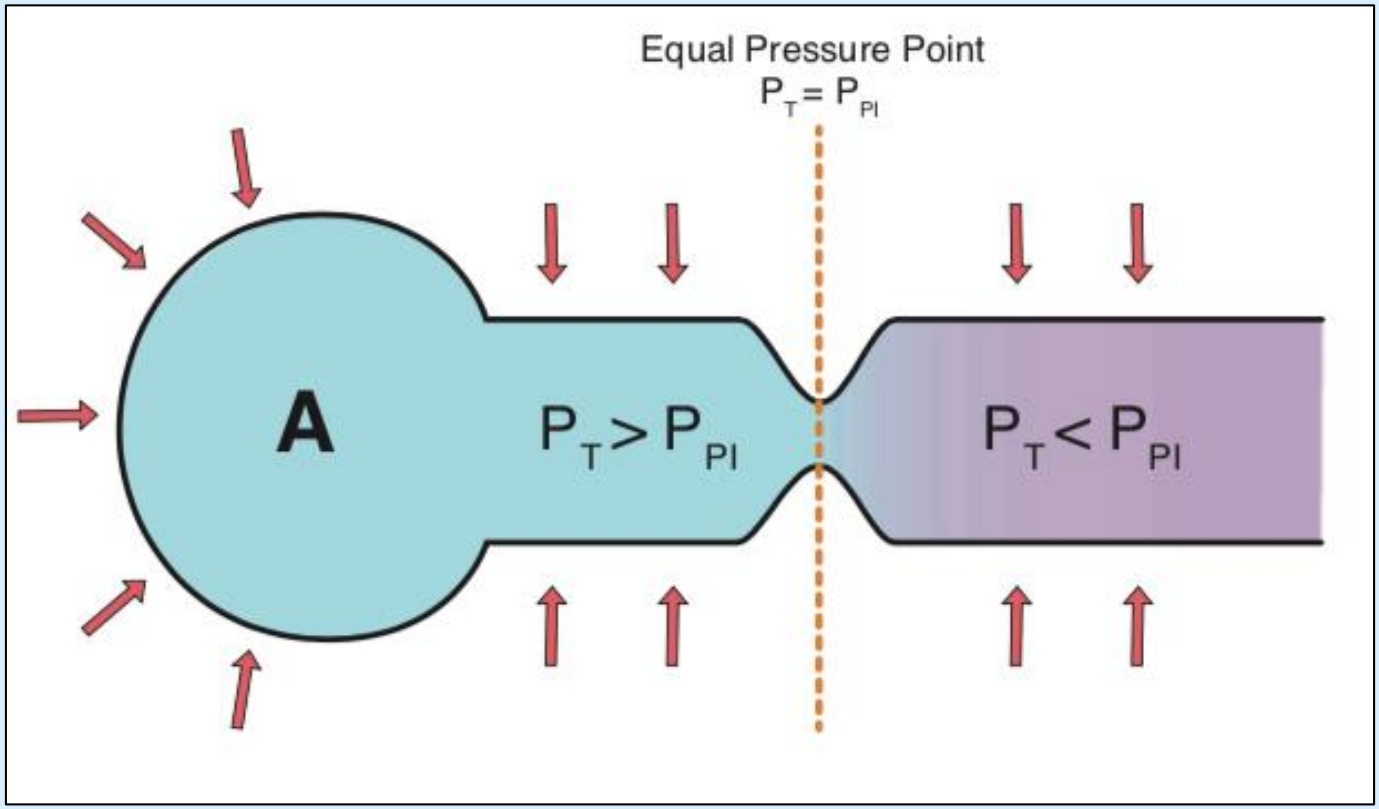


Campos JH. Update on Tracheobronchial Anatomy and Flexible Fiberoptic Bronchoscopy in Thoracic Anesthesia. *Curr Opin Anesthesiol*. 2009;22:4-10

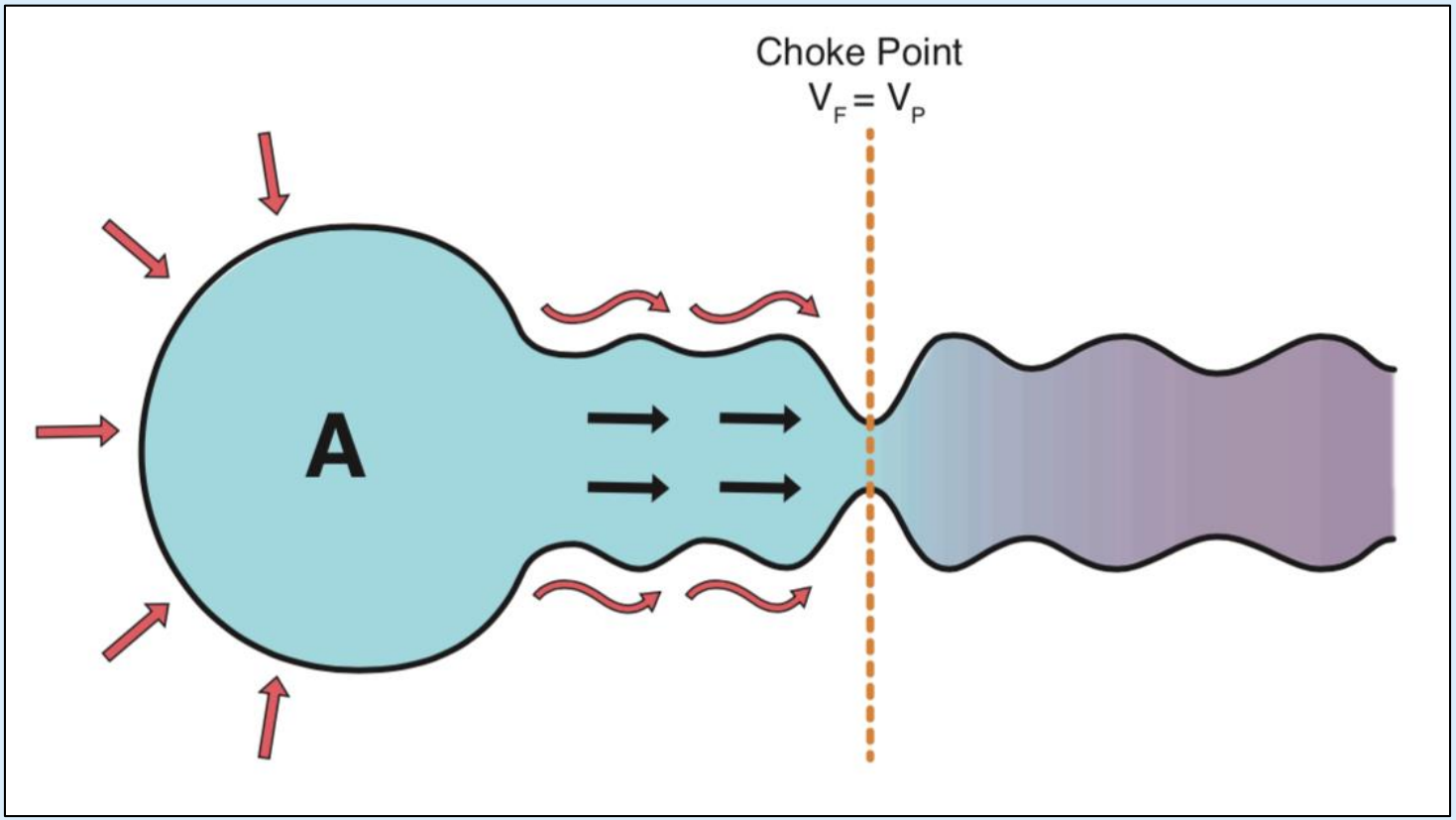
Physiology of Airway Collapse

- Expiratory Flow limitation (EFL)
- 2 theories of EFL
  - Equal Pressure Point Theory
  - Wave Speed Theory

Expiratory Flow Limitation, Equal Pressure Point Theory



Expiratory Flow Limitation, Wave Speed Theory



Definition of Pathological Collapse

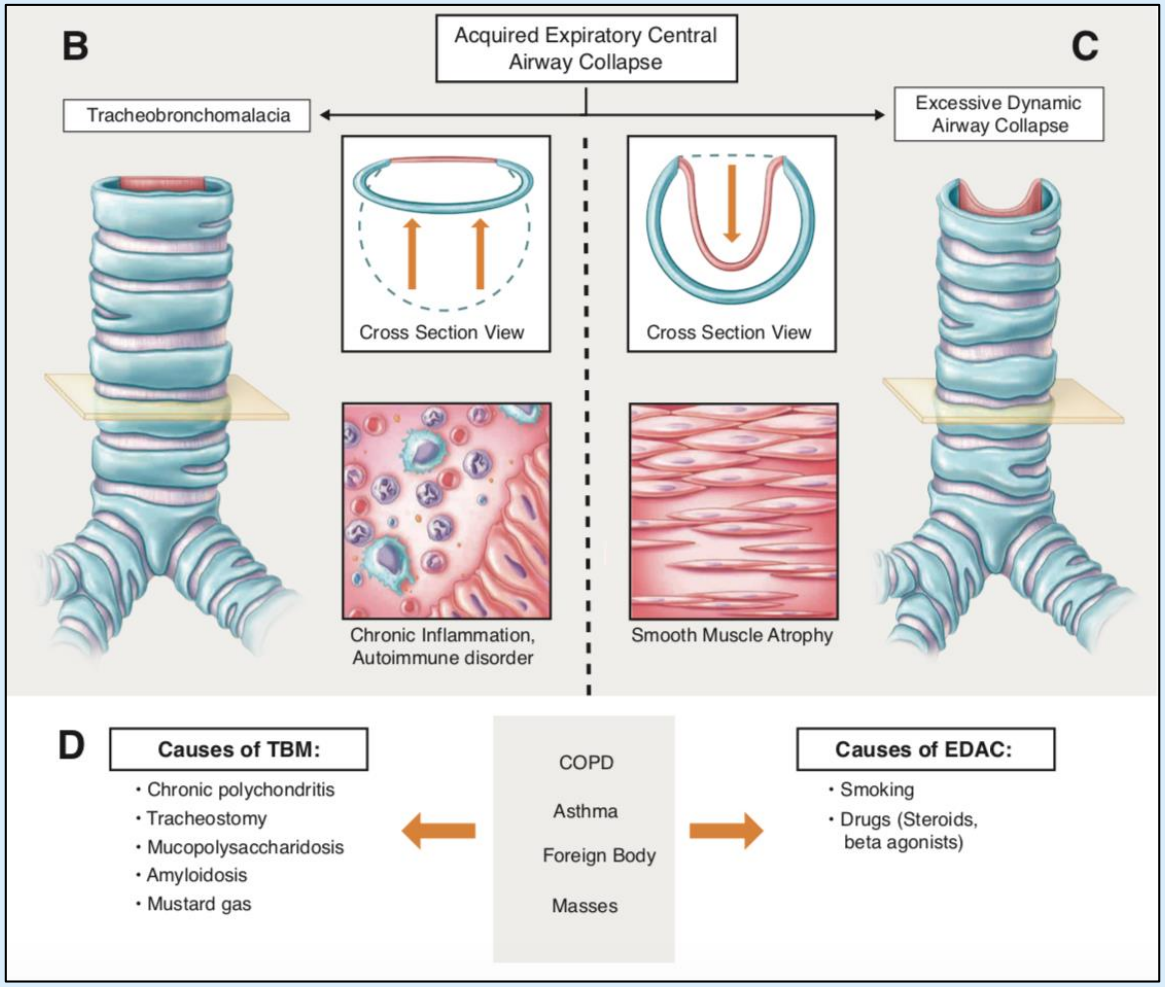
- The degree of collapse is debatable
- Traditionally, > 50%
  - Incidence
    - 13% in smokers
    - Up to 40% in patients with COPD
- 70 % of collapse correlates better with symptoms
  - Case reports of life-threatening collapse during general anesthesia and monitored anesthesia care

Buitrago DH, Wilson JL, Parikh M, et al. Current Concepts in Severe Adult Trachoebronchomalacia: Evaluation and Treatment. *J Thorac Dis* 2017;9:E57-66

Risk Factors

- Smoking
- Chronic Obstructive Pulmonary Disease
- Females
- Older Age

Pathophysiology



Diagnosis of ECAC

- Clinical Presentation
- Static Testing
  - Chest x-rays
  - Pulmonary Function tests
- Dynamic Testing
  - ***Bronchoscopy***
  - Dynamic multi-detector CT scan

Anesthetic Implications of ECAC

Anesthetic Management of Patients with ECAC

- Precipitants of Airway Collapse
  - Induction of General Anesthesia
  - Muscle relaxation
  - Mechanical Ventilation

- The critical degree of collapse is unknown, but likely 70%

Anesthetic Management of Patients with ECAC

< 70% collapse, absence of severe symptoms

Consider alternatives to general anesthesia (regional anesthesia, neuraxial block, monitored anesthesia care)

If general anesthesia is considered, maintain spontaneous ventilation

Consider an emergency plan and prepare the proper equipment

>70% collapse, severe symptoms

Elective surgery: refer for corrective treatment of ECAC beforehand

Emergency surgery: consider mechanical circulatory support before induction

Diaz Milian R, Foley E, Bauer M, et al. Expiratory Central Airway Collapse in Adults: Anesthetic Implications (Part 1). *J of Cardiothorac Vasc Anesth*. 2018 (Epub ahead of print, PMID:30279066)

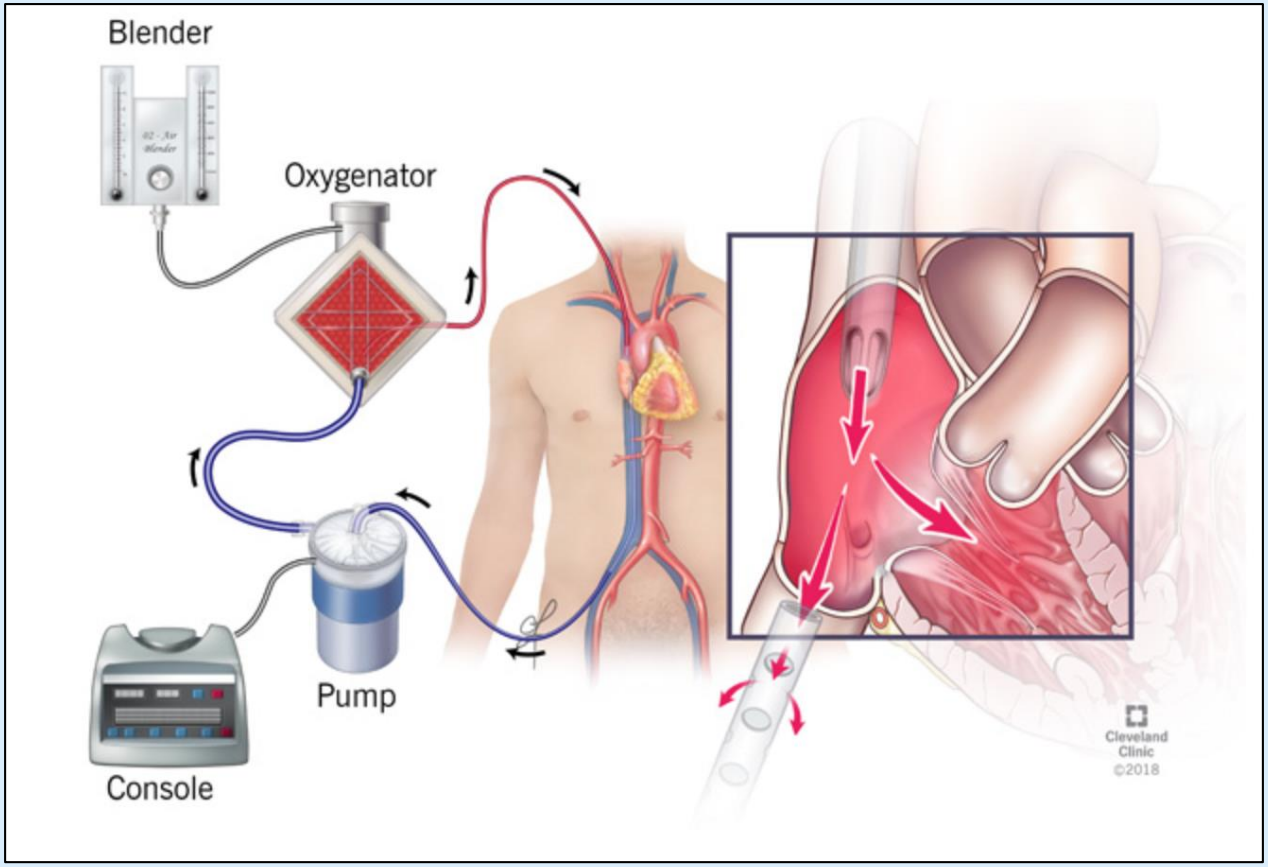
Prevention of Collapse

- Maintain spontaneous ventilation
- Monitored Anesthesia Care
  - Favor drugs that allow spontaneous ventilation (Dexmedetomidine, Ketamine)
  - Consider continuous positive pressure ventilation (CPAP) or high flow nasal cannula (HFNC)
- General Anesthesia
  - Avoid muscle relaxants
  - Prepare emergency equipment

Emergency Airway Equipment

- Endotracheal tube
- Laryngoscope
- Fiberoptic Scope
- Rigid bronchoscope (and operator)
- Jet ventilation
- Helium/Oxygen

Pre-Induction VV-ECMO



Krishan, S. Venovenous Extracorporeal Membrane Oxygenation for Lung Failure. Consult QD. https://consultqd.clevelandclinic.org. Published: Jan 7 2019.

Intraoperative Management of Unexpected Airway Collapse

Intra-operative Airway Collapse

- Presentation
  - Sudden increase in peak and plateau pressures (VCV) or decrease in tidal volumes (PCV)
  - Loss of Capnography waveform
  - Difficulty hand-bag ventilation
- Differential diagnosis
  - Tube, circuit occlusion or machine malfunction
  - Bronchospasm
  - Undiagnosed mediastinal mass

Management of Collapse due to ECAC

- Return to spontaneous ventilation
- Positional changes
- Advancement of the tube to a non-collapsed segment
- Pneumatic Stenting
- Jet Ventilation
- Helium:Oxygen
- *ECMO*

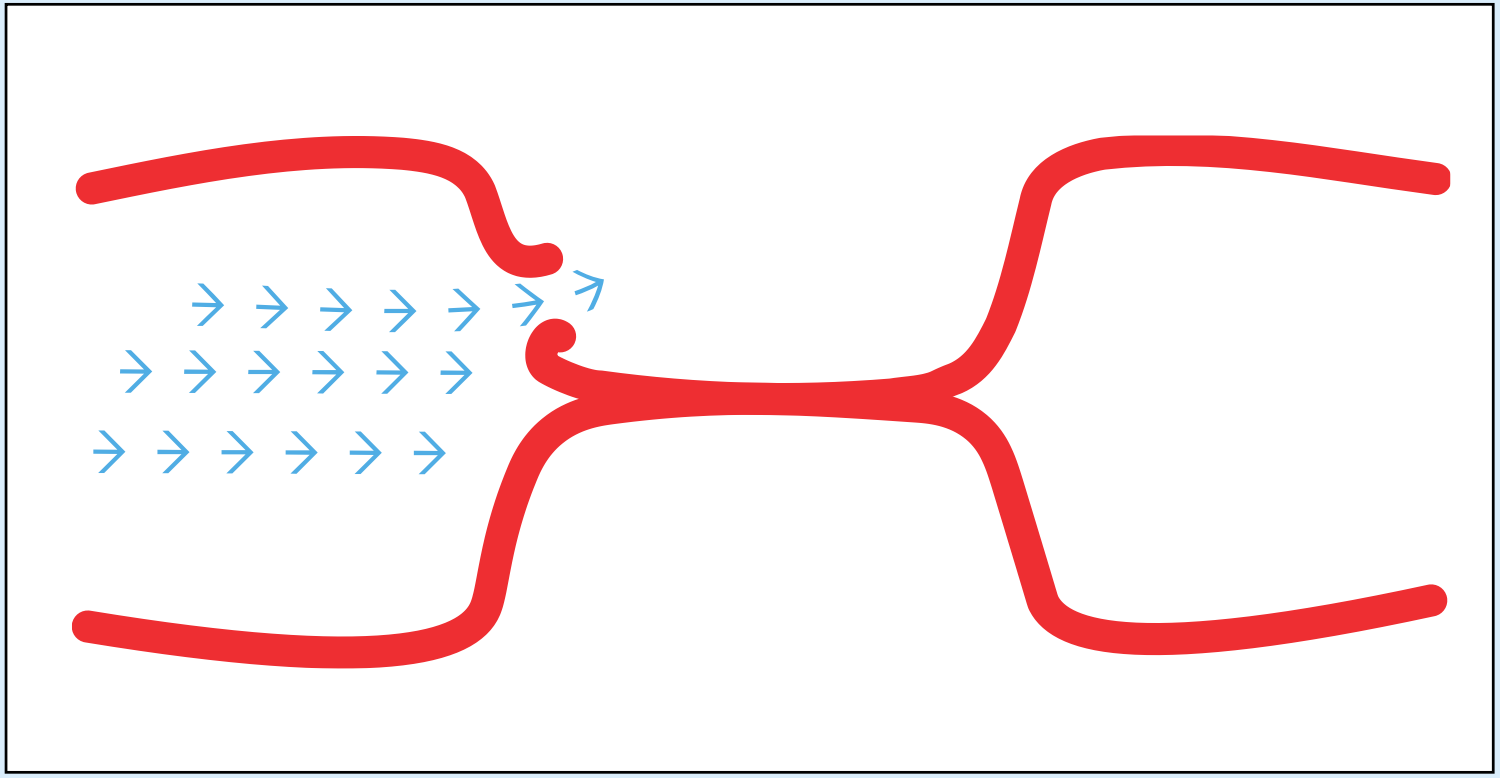
Pneumatic Stenting

- Use of positive pressure to open the airway
- Recruitment maneuver
- Positive end expiratory pressure (PEEP)
  - High PEEP
    - Decreased preload
    - Decreased CO
    - Increased RV afterload
    - Decreased ventricular contractility

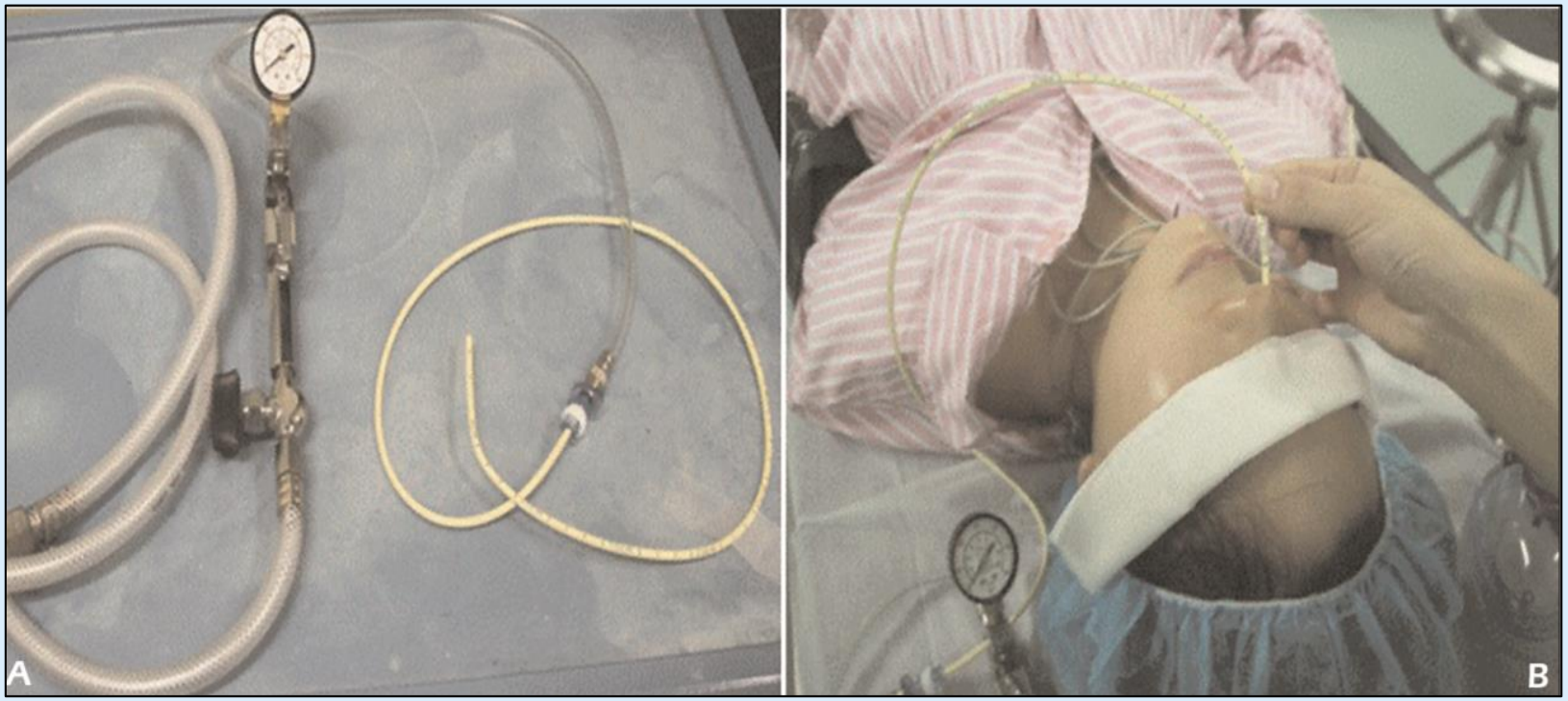
Jet Ventilation

- Pressurized oxygen at high respiratory rates
- Oxygenation → Diffusion
- Ventilation → Convection of flow
- Constant PEEP
- Complications
  - Barotrauma
  - Air trapping
  - Ischemia
  - Gastric insufflation
  - Arrhythmias

Jet Ventilation

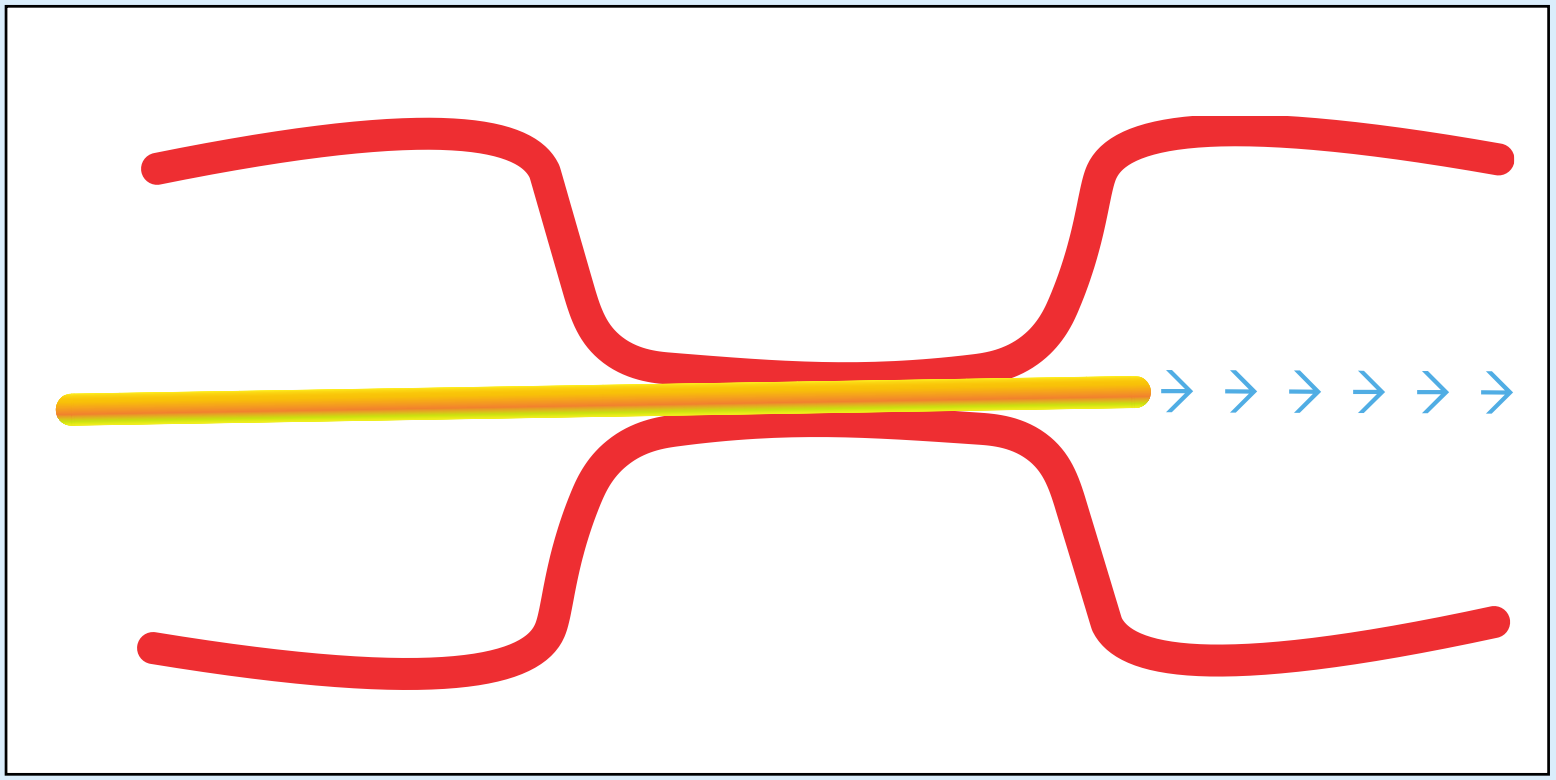


Jet Ventilation



Yang Z, Meng Q, Xu Y, Wang J, Yu D. Supraglottic jet oxygenation and ventilation during colonoscopy under monitored anesthesia care : a controlled randomized clinical trial. *Eur Rev Med Pharmacol Sci*. 2016;20:1168-1173.

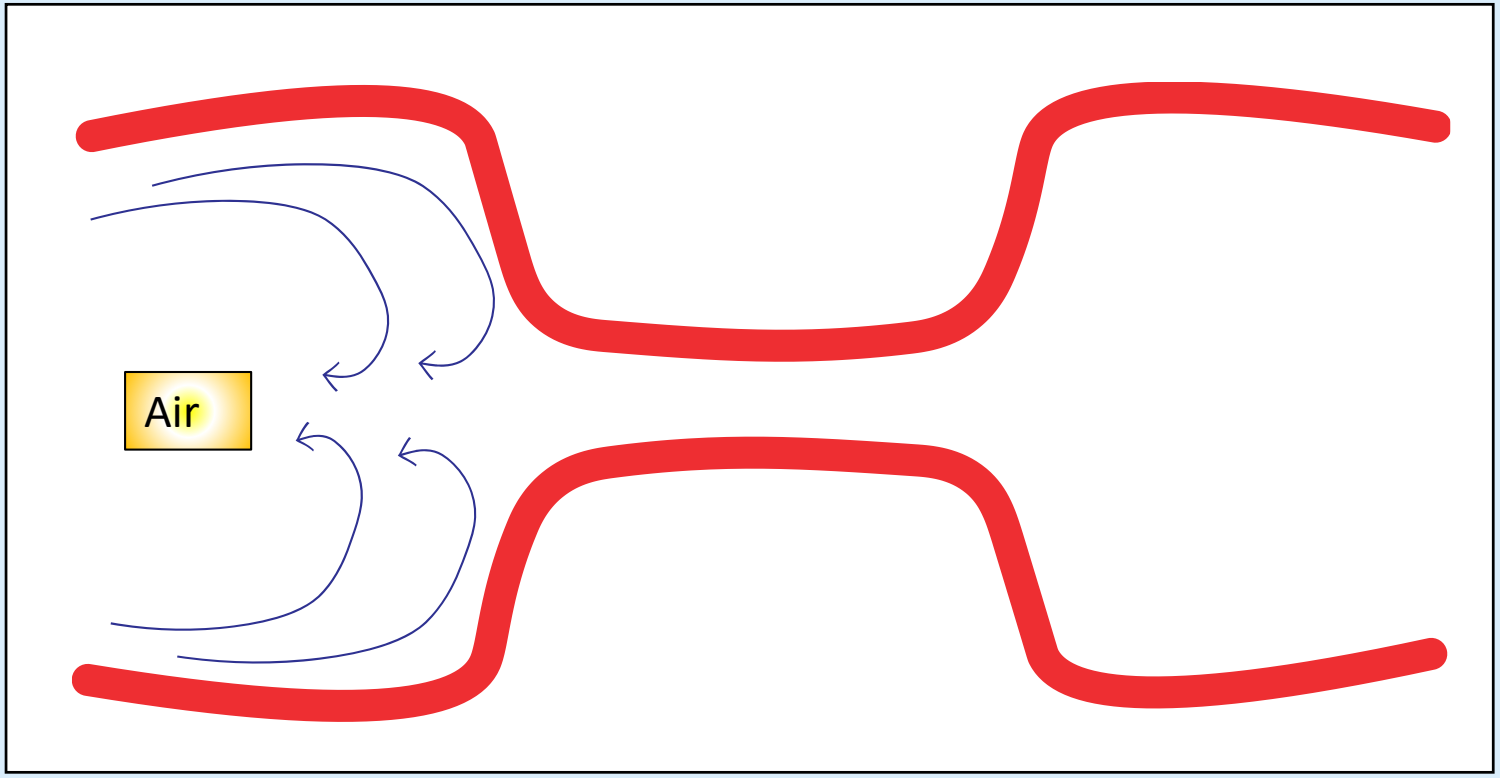
Jet Ventilation



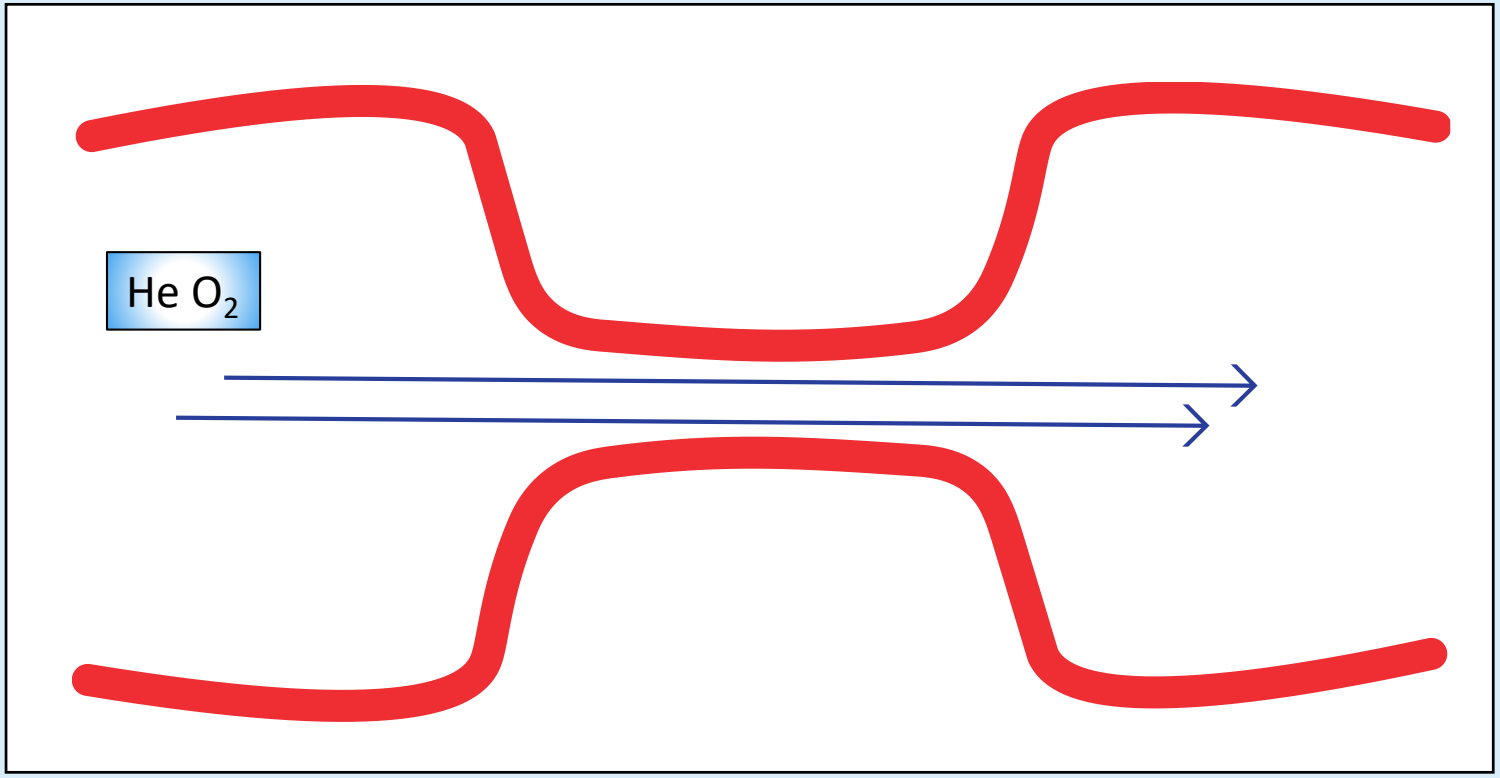
Helium

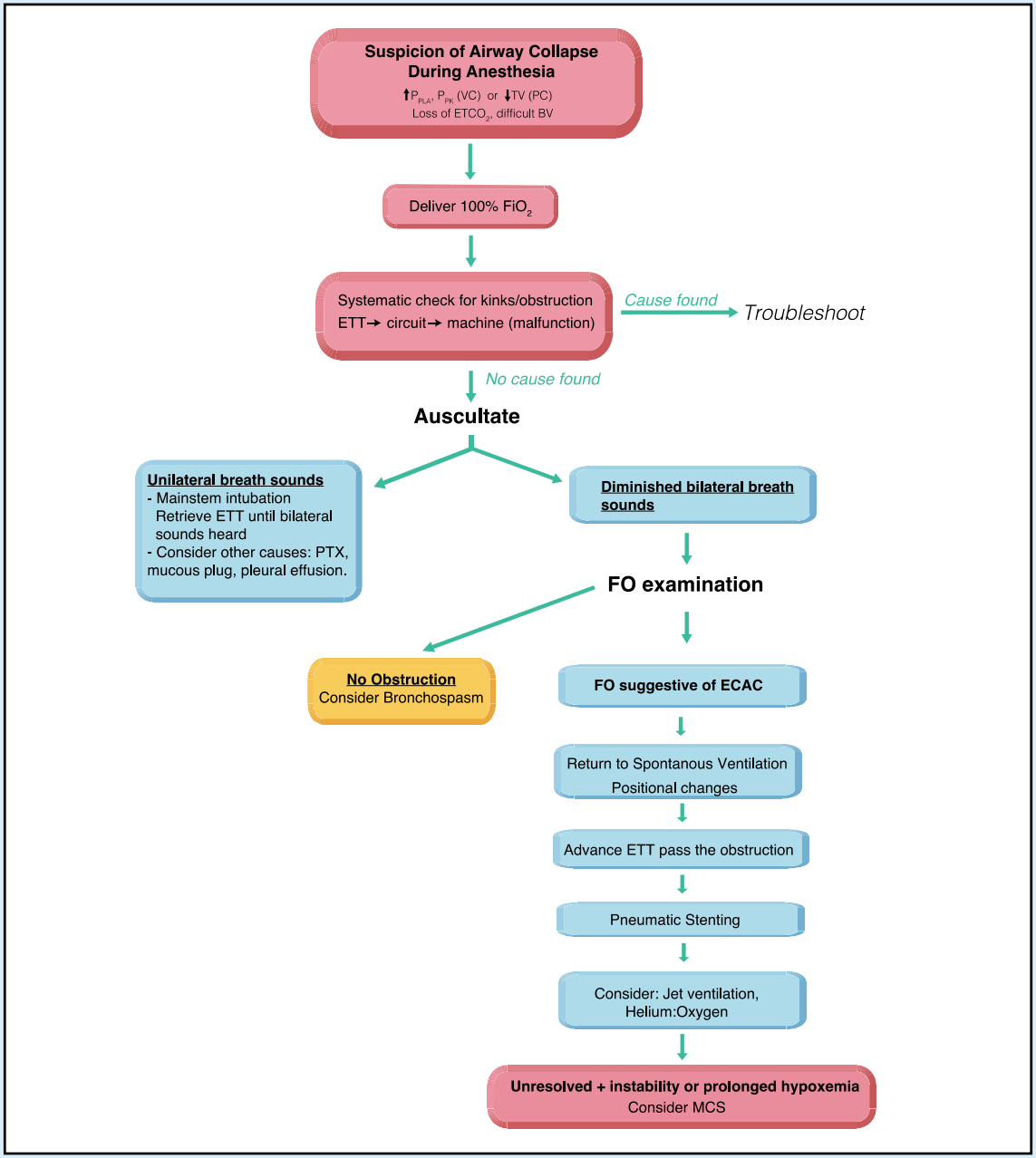
- Light gas
- Available as
  - He:O_2 (79%/21%)
  - He:O_2 (72%/28%)
- More useful with hypercarbia than hypoxemia

Use of of Helium



Use of Helium




Suspicion of Airway Collapse During Anesthesia
↑P_{PLAT}, P_{PK} (VC) or ↓TV (PC)
Loss of $ETCO_2$, difficult BV
Deliver 100% FiO_2
Systematic check for kinks/obstruction
ETT→ circuit→ machine (malfunction)
Cause found
Troubleshoot
No cause found
Auscultate
Unilateral breath sounds
- Mainstem intubation
Retrieve ETT until bilateral sounds heard
- Consider other causes: PTX, mucous plug, pleural effusion.
Diminished bilateral breath sounds
FO examination
No Obstruction
Consider Bronchospasm
FO suggestive of ECAC
Return to Spontanous Ventilation
Positional changes
Advance ETT pass the obstruction
Pneumatic Stenting
Consider: Jet ventilation, Helium:Oxygen
Unresolved + instability or prolonged hypoxemia
Consider MCS

Emergence and Extubation

- Establish the degree of collapse with FO examination
- High risk of Postoperative respiratory failure
  - Perform a Spontaneous Breathing trial
    - Rapid Shallow Breathing index < 100
    - Oxygen Saturation > 90%
    - Observe for collapse (loss of capnography, increase respiratory pressures)
- Consider extubating to non-invasive ventilation
- Monitor in an intermediate care unit

Corrective Treatment of ECAC

Treatment of ECAC

- Medical Management
- Airway Stent placement
  - Trial
  - Palliative
- Tracheobronchoplasty

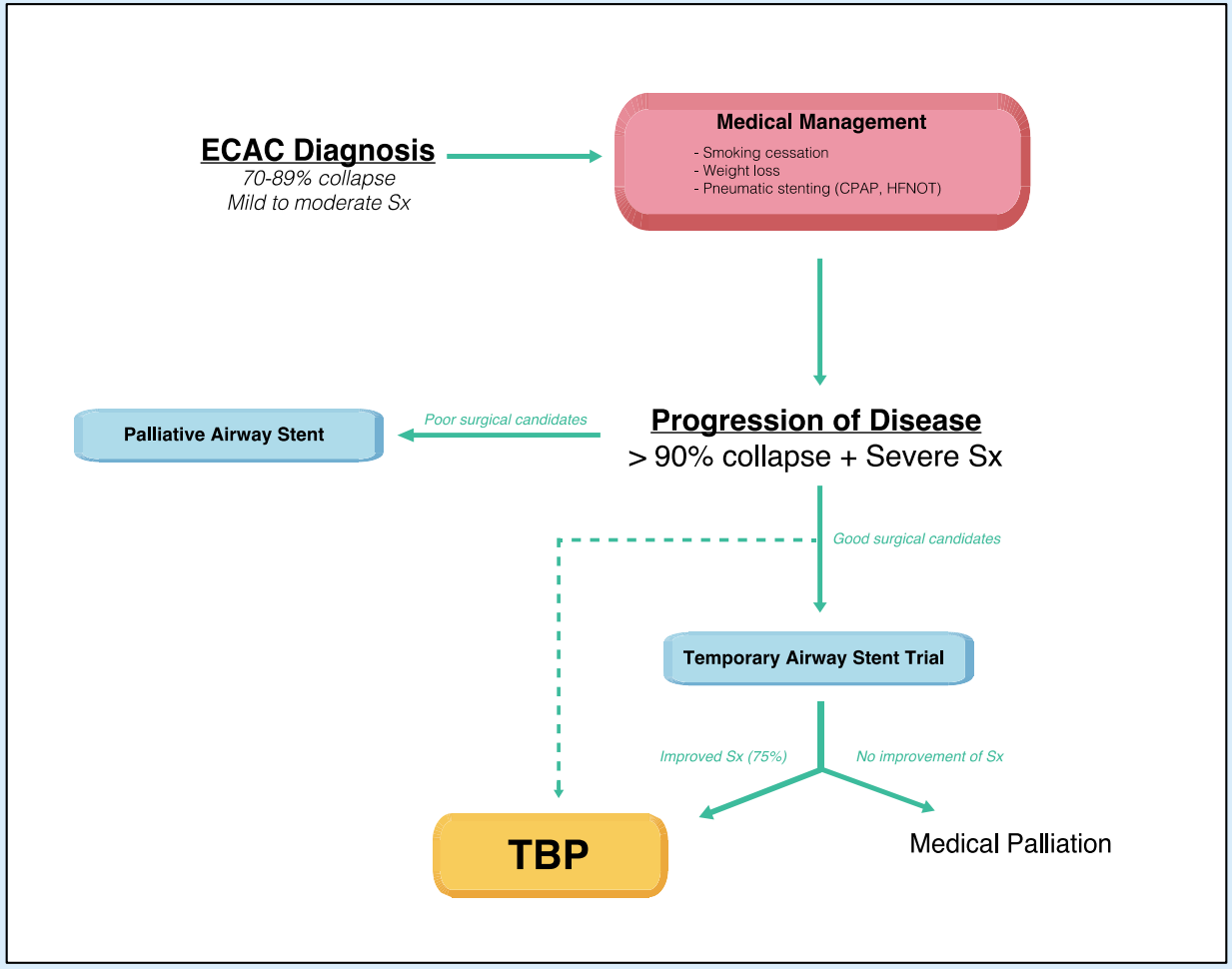
Medical Management of ECAC

- Lifestyle modifications
  - Smoking cessation
  - Weight loss
  - Optimization of comorbidities
- Pneumatic stenting
  - Continuous positive airway pressure (CPAP)
  - Non-invasive positive pressure ventilation
  - High flow nasal oxygen therapy

Corrective Treatment, Patient Selection

- Indication for surgery
  - Presence of severe symptoms (dyspnea and intractable cough) attributed to severe airway collapse (>90%).
  - Respiratory Failure requiring mechanical ventilation
- Poor Surgical candidates
  - Deemed unable to tolerate single lung ventilation
    - Preoperative hypoxemia

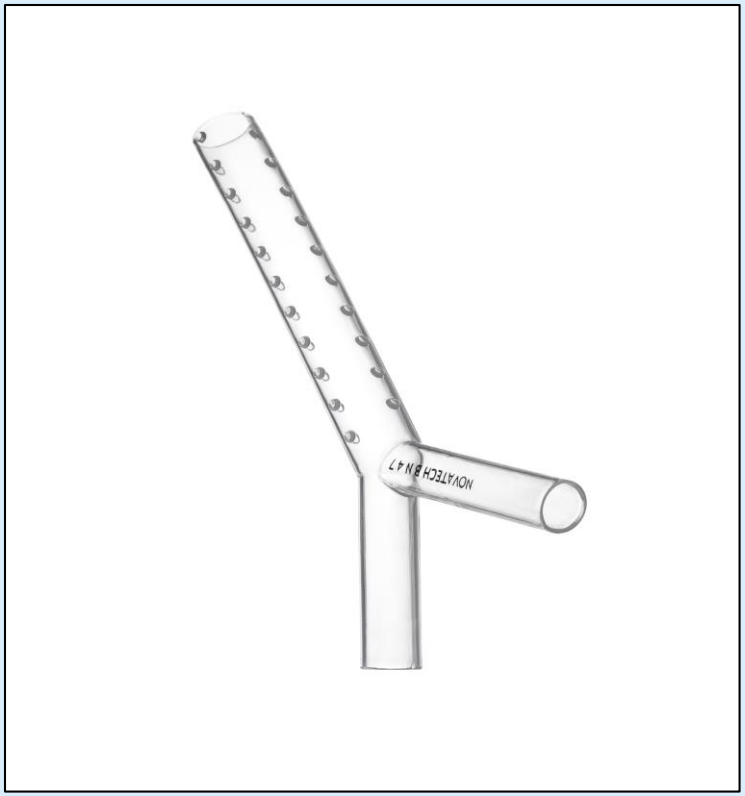
Management Algorithm



Diaz Milian R, Foley E, Bauer M, et al. Expiratory Central Airway Collapse in Adults: Anesthetic Implications (Part 2). *J of Cardiothorac Vasc Anesth*. 2018 (Epub ahead of print, PMID:30279066)

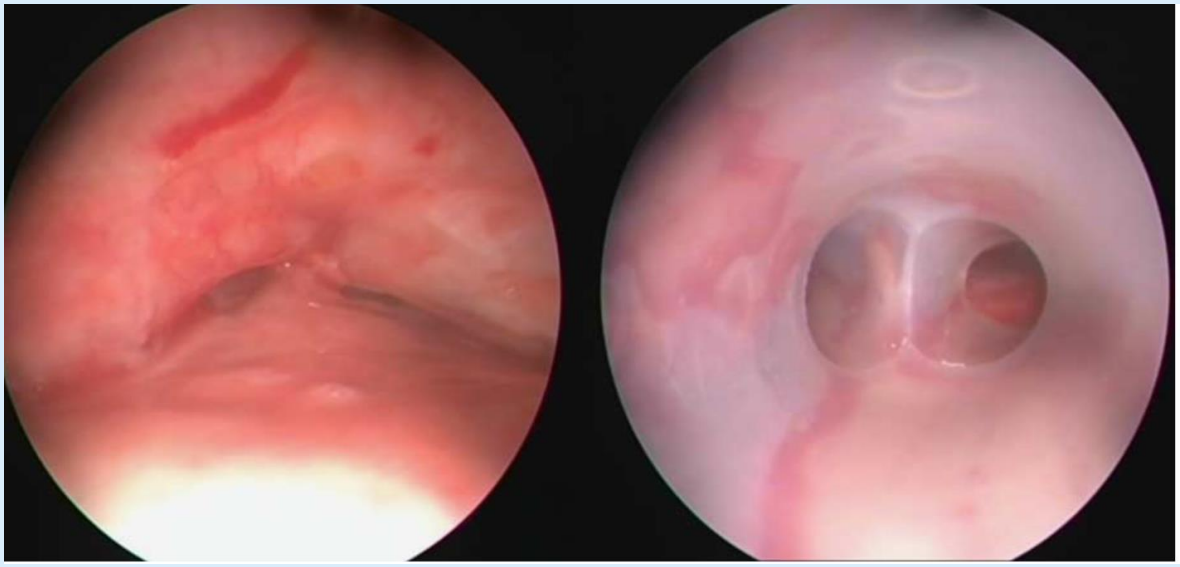
Airway Stent

- “Y” shaped stents
  - Metal
  - Silicone
- Placed via rigid bronchoscope
- Complications
  - Mucus plugging
  - Infection
  - Stent migration
  - Severe cough
  - Subglottic edema
  - Breakage



DUMON Y stent, provided by Boston Medical.

Airway Stent



Ozgul MA, Cetinkaya E, Cortuk M, et al. Our Experience on Silicone Y-Stent for Severe COPD Complicated with Expiratory Central Airway Collapse. *J Bronchol Interv Pulmonol*. 2017;24(2):104-109.

Anesthetic Management of Airway Stent Placement

- Assess risk of collapse
- Prepare emergency equipment
- Total intravenous anesthesia
- Oxygenation and Ventilation
  - Apneic oxygenation
  - Intermittent ventilation
  - Jet ventilation

Tracheobronchoplasty

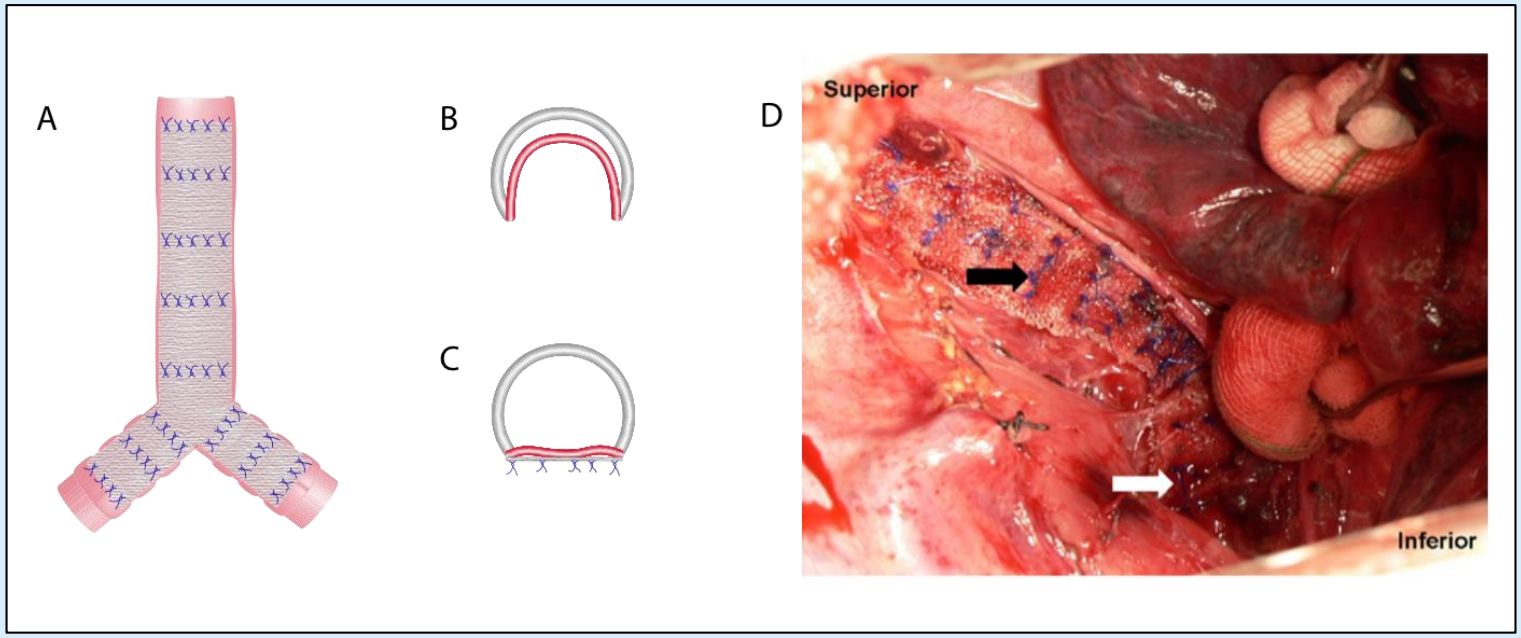
- Stabilization of membranous trachea by plication and mesh placement
- Improvement of symptoms
  - 3 months 77.8%
  - 1 year 75%
  - 2 year 67.6%
  - 5 years 65%

Murgu SD, Egressy K, Laxmanan B, et al. Central Airway Obstruction. *Chest* 2016;150:426-41

Tracheobronchoplasty

- Complications
  - Pneumonia
  - Atrial arrhythmias
  - Pulmonary embolism
  - Renal failure
  - Myocardial infarction
  - Need for tracheostomy
  - Mortality 5.7%

Tracheobronchoplasty



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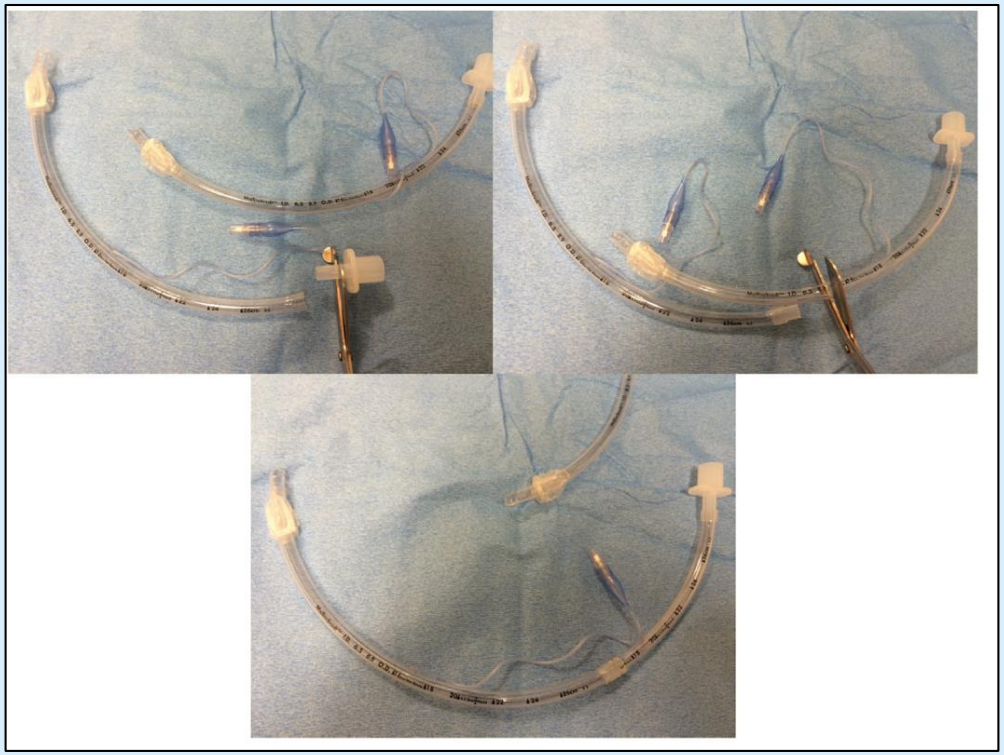
Anesthetic Management of TBP

- Preoperative Evaluation
  - Stress test
    - Poor functional capacity from suspected CAD + surgery can delayed for stent + DAT
  - Functional status
    - E.g. Karnofsky performance status

Anesthetic Management of TBP

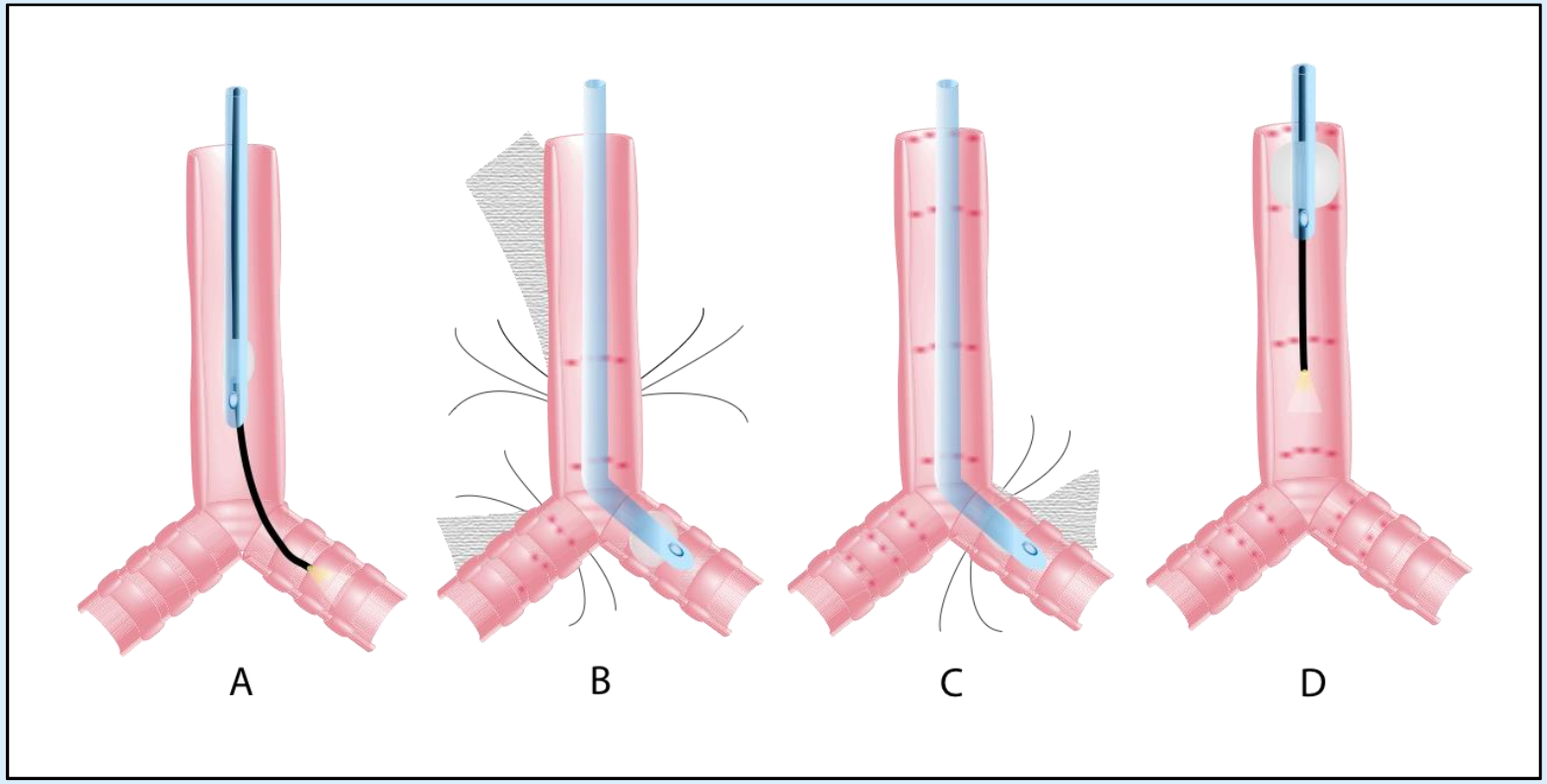
- Induction of general anesthesia
- Maintenance
  - Total Intravenous Anesthesia
  - Brain activity monitor
- Airway
  - Intermittent ventilation
  - Jet Ventilation
  - One lung Ventilation
    - Modified left double lumen tube
    - Endobronchial tube
    - Combination technique

Endobronchial Tube



McLaurin S, Whitener GB, Steinburg T, et al. A Unique Strategy for Lung Isolation During Tracheobronchoplasty. *J Cardiothorac Vasc Anesth*. 2017;31:731-737.

Airway Management of Tracheobronchoplasty



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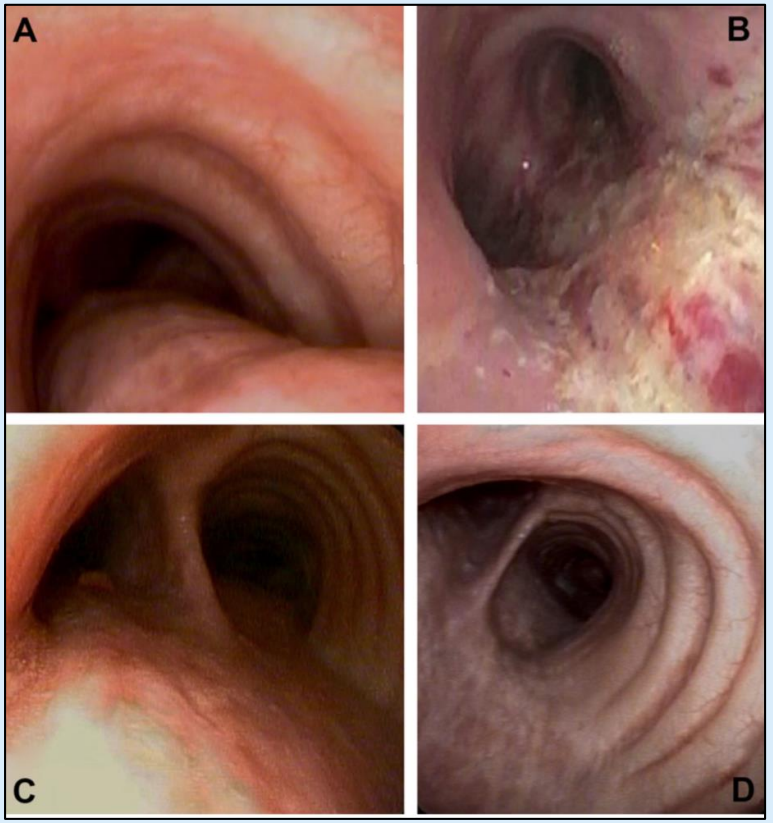
Anesthetic Management of TBP

- Extubation
  - Muscle reversal
  - Spontaneous breathing trial
  - Respiratory monitoring in an intensive care unit
- Post-operative Pain Control
  - ***Thoracic epidural***
  - Paravertebral catheters
  - Ultrasound-guided fascial plane blocks
    - Serratus anterior
    - Erector Spinae block

Laser Tracheobronchoplasty

- Novel approach
- Suspension laryngoscopy
- Single study



Castellanos P, Mk M, Atallah I. Laser tracheobronchoplasty: a novel technique for the treatment of symptomatic tracheobronchomalacia. *Eur Arch Oto-Rhino-Laryngology*. 2017;274:1601-1607.

Conclusions

- ECAC is difficult to recognize
- Significant risk of airway and ventilatory compromise
- > 70% collapse is significant, particularly when associated with symptoms
- > 90% collapse is critical, and an indication for surgical repair

Questions?

Thank you for your time

References

- Diaz Milian R, Castresana MR. Recurrent failure of positive-pressure ventilation: machine malfunction or a rare, unexpected cause? *J Cardiothorac Vasc Anesth*. 2017;32:2029-2030.
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- Castellanos P, Mk M, Atallah I. Laser tracheobronchoplasty: a novel technique for the treatment of symptomatic tracheobronchomalacia. *Eur Arch Oto-Rhino-Laryngology*. 2017;274:1601-1607.
- Diaz Milian Ricardo, Foley Edward, Bauer Maria, Martinez-Velez Andrea, Castresana Manuel. Expiratory Central Airway Collapse: Anesthetic Implications (part 1). *Journal of Cardiothoracic and Vascular Anesthesia*. 2018 (In press)
- Diaz Milian Ricardo, Foley Edward, Bauer Maria, Martinez-Velez Andrea, Castresana Manuel. Expiratory Central Airway Collapse: Corrective Treatment (part 2). *Journal of Cardiothoracic and Vascular Anesthesia*. 2018 (In press)

Agenda

Friday, June 28

3:00 - 7:00p **Registration**
Talbot F-H Foyer

4:00 - 9:00p **Exhibitor Assembly**
Talbot D

5:00 - 7:00p **Board of Directors Meeting**
Kings Bay

Saturday, June 29

All sessions will take place in Talbot E-H unless otherwise noted.

6:00a **Exhibitor Assembly**
Talbot D

6:30a – 1:30p **Registration**
Talbot F-H Foyer

6:30 – 7:20a **Breakfast with Exhibitors**
Talbot D

7:20 – 7:30a **Welcome**
Steven L Sween, MD, GSA President
Korrin Scott, MD, Chair, Program and Education Committee

Introductions
Mike Duggan, MD
GSA 2019 Summer Activity Director

7:30 – 8:30a **ASA Update**
Mary Dale Peterson, MD, MSHCA, FACHE
ASA President – Elect

8:30a – 12:00p **Anesthesiologists Tailored Approach to Patient Safety Considerations When Using Opioid Analgesics**
James Rathmell, MD
Shalini Shah, MD
Santhanam Suresh, MD
Kevin Vorenkamp, MD, FASA

9:30 – 10:00a **Break with Exhibitors**
Talbot D

7:00 - 8:30p **Welcome Hospitality with Exhibitors**
Talbot D

8:30p **Dinner on Your Own**

9:30 – 10:00a **Resident Poster Presentations**
Talbot D Foyer
Alexandra Waits, Medical Student
Vats Ambai, Medical Student
Ashish Sakharpe, MD, Resident
Ryan Nicklas, MD, Resident

12:00 – 1:00p **SOAP Enhanced Recovery after Cesarean**
Mark Zakowski, MD, FASA

1:00 pm **Meeting Adjourned/Family Fun**

1:00 – 2:00p **Resident Section Meeting**
Cumberland

GAAA Board Meeting
Director's

4:00 – 5:00p **Ice Cream Sundae Social**
****Sponsored by GAAA*
Talbot Colonnade

5:00 – 6:00p **Committee Meetings**
- Government Affairs - Talbot A
- Practice Management – Talbot A
- Membership – Talbot B
- Program & Education – Talbot C

6:00 – 6:30p **Governance Assembly**
(Committee Reports)
Talbot E-H

6:00 – 6:30p **Residents and Student AAs Reception**
Courtyard (Upper Garden)

6:30 – 8:00p **Evening Reception**
Courtyard (Lower Garden)

Agenda

Sunday, June 30

All sessions will take place in Concourse Ballroom unless otherwise noted

6:30 – 7:30a **Breakfast with Exhibitors**
Talbot D

7:00 – 7:30a **GSA General Business**
Talbot E-H

7:30 – 8:30a **Obstetric Hemorrhage Update**
Mark Zakowski, MD, FASA

8:30 – 9:00a **Break with Exhibitors**
Talbot D

9:00 – 10:00a **Let's Talk Law with Anesthesiologists**
Joscelyn Hughes, JD

10:00 – 11:00a **Expiratory Central Airway Collapse, Anesthetic Implications**
Ricardo Diaz Milian, MD

11:00a **Meeting Adjourned**

Please be sure to visit our exhibitors.

Exhibit Hours:

Friday, June 28
7:00 – 8:30p

Saturday, June 29
6:30 – 7:20a
9:30 – 10:00a

Sunday, June 30
6:30 – 7:30a
8:30 – 9:00a

Industry Partners

Commercial Support

The Georgia Society of Anesthesiology gratefully acknowledges the following companies for commercial support of educational grants for the 2019 Summer Meeting.

MAG Mutual
Unrestricted educational grant

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Exhibitors

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CME Direction

Directions for Claiming CME Credit

Please follow these directions to access the course, claim your CME credits, complete the program evaluation(s) and print your CME certificate(s):

All credits must be claimed by December 31, 2019

Please follow these directions to access the course, claim your CME credits, complete the program evaluation(s) and print your CME certificate(s):

1. Log in to the ASA Education Center at: http://education.asahq.org/

   If you have accessed the ASA Education Center for a previous meeting, please use your existing ASA username and password.

   If you have not previously accessed the ASA Education Center, you will soon receive an e-mail from the ASA Education Center with log-in instructions.

2. Once you have logged on to the ASA Education Center homepage, click the tab that says “MY COURSES” for the link to the {course}.

   “MY COURSES” can be found at: http://education.asahq.org/my-activities

3. Select the link to access the course evaluation and claim credit.

4. To retrieve a username or password, enter your email address at: http://education.asahq.org/user/password

You must claim your credits for this course by Dec. 31, 2019.
You will NOT be able to claim credits after this date.

If you have any questions, please contact the ASA Education Center at educationcenter@asahq.org.

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