

October Webinar : Office-Based Anesthesia 2020 Update

-Speaker Attendees :

Dr. Fred Shapiro and Dr. Richard Urman

-Webinar Moderator : Rosalind Ritchie

Thank you for joining – SAMBA
appreciates your attendance!

Office Based Anesthesia : Quality, Safety, and Best Practices

Fred E. Shapiro DO, FASA

Associate Professor of Anaesthesia,
Harvard Medical School

Department of Anesthesia, Critical Care, and Pain Medicine,
Beth Israel Deaconess Medical Center

Boston, MA

the
ANESTHESIOLOGY
annual meeting



American Society of
Anesthesiologists

Beth Israel Deaconess
Medical Center



HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

Disclosure

- I have no financial relationships with commercial support to disclose

The Institute for Safety in Office-Based Surgery

- Non-profit organization established 2009
- Purpose:
 - Promote patient safety and outcomes research
 - Design tools for advanced detection and prevention of adverse events
 - Collaborate across ALL subspecialties
 - Educate physicians and patients
 - Generate evidence-based standard of care for safer office based practice



www.isobs.org

“to promote patient safety
in office-based surgery
and to encourage
collaboration, scholarship,
physician and patient
education”

Learning Objectives

- Be able to identify the most common safety-related issues encountered in the office-based surgical and anesthesia setting
- Comprehend key safety considerations when setting up an office- based surgical practice
- Understand surgical-related safety issues including appropriate patient and procedure selection
- Understand office-based safety practice management issues including facility accreditation, checklists, and emergency preparedness.

Overview

- Introduction: Office-Based Anesthesia and Surgery
- Safety Literature
- Accreditation – AAAHC, TJC, AAAASF
- 2018-19 Challenges and Updates
- Practice Management: “Hot” Topics
- Update: State Legislation

Osman BM, Shapiro FE. Office-Based Anesthesia: A Comprehensive Review and 2019 update, Anesthesiol Clin. 2019 Jun;37(2):317-331.

de Lima A, Osman BM, Shapiro FE. Curr Opin Anesthesiol 2019, 32:000–000 (Pub Med ahead of print)

Recent Media Attention: High-Profile Events



Teen died of malignant hyperthermia during breast surgery; parents suing surgeon and anesthesiologist for not recognizing MH and having enough dantrolene stocked in outpatient surgery center



Eight-year-old died after receiving three times the prescribed amount of sedation medication for a routine checkup and an emergency developed thereafter



25-year-old died due to possible hypoxia and lack of monitoring after Propofol administration for wisdom tooth extraction



Three-year-old died of possible apnea after general anesthesia for tooth extraction



Joan Rivers died of hypoxia and cardiac arrest after Propofol administration for endoscopic procedure for vocal changes and acid reflux



September 14, 2011

By Jayne O'Donnell

*“... levels of training vary so widely that some doctors are performing cosmetic procedures **after only a weekend** observing other doctors.”*

USA TODAY INVESTIGATION

These women **died** after having liposuction.



Maria Shortall



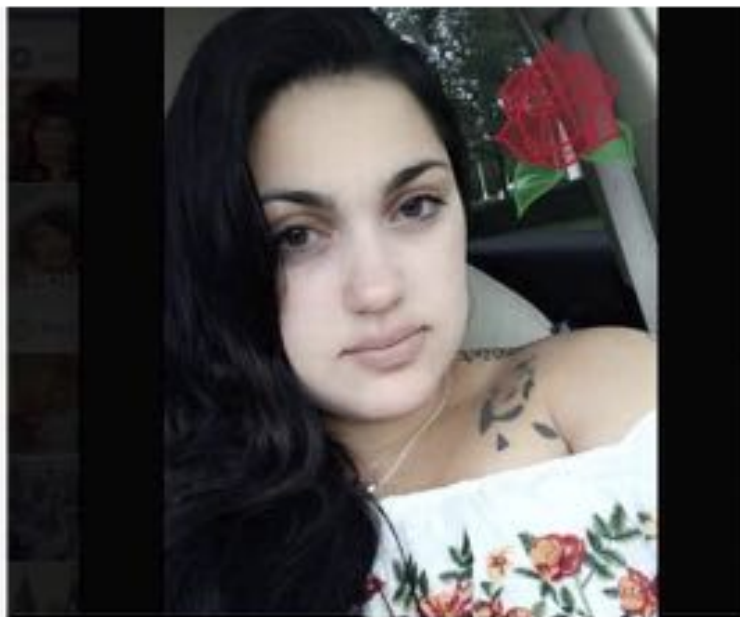
Kellee Lee-Howard

Their doctor, like many in the booming cosmetic surgery field, wasn't board-certified — but **there was no law to stop him.**

'It's got to stop:' Family of woman who died after cosmetic surgery pleads for action

BY MARTIN VASSOLO

MAY 10, 2019 09:22 PM, UPDATED 28 MINUTES AGO



NINOSKA FEREZ/FACEBOOK



Ninoska Ferez

23 hrs

It is with great pain that we say R.I.P darling Denele (my niece). May God give us strength. 🙏
ESPAÑOL: Con mucho dolor le decimos R.I.P querida Denele (mi sobrina). Que Dios nos dé fuerzas.

See Translation

— with Denele Plasencia



81 Comments · 10 Shares

Like

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View previous comments

6 of 87



Mercy Andujar Mi pesame por su pérdida. Dios nos dé la fortaleza.

Like · See Translation · 8h



Ivette Martinez Lo lamento mucho que Dios les dé mucha fortaleza.

Like · See Translation · 5h



Yasmín García First I am so sorry for your loss. May God comfort you and your family during such trying times. 🙏

Like · 1h



**USA
TODAY**
08.13.18



Black women rule magazine covers in September

Mainstream fashion publications make
an unprecedented move and powerful

“We shouldn’t have a patchwork system where one state asks for one thing and others ask for others. What consumers want is consistency.”

Bill Prentice

Ambulatory Surgery Center Association

PGA Championship
Woods takes second; Brooks Koepka
wins his second major of the season

**Schools must reassess
after football scandals**

Rock, Arkansas, surgery centers set a
colonoscopy, among the safest procedures a patient can have.

Each stopped breathing soon after-
ward, exhibiting the same type of
brain damage seen in a drowning vic-

Health news investigation found that
surgery centers operate under such a
hodgepodge of rules across states that
fatalities or serious injuries can result in

See **SURGERY**, Page 4A



“I’m not ready,” Faye Watkins, 63,
recalls thinking when her blood
pressure dropped during a colon-
oscopy. ROBERT HUSTON FOR USA TODAY

“Wild Wild West of Healthcare”

- Lack of uniform regulation of office based practice
- Increasing number and variety of cases
- Increasing complexity of cases and patients
- Sedation by anesthesia and non-anesthesia personnel
- Widely publicized fatalities and malpractice claims

Vila et al.

Arch Surg 2003;138:991-995 - Tampa, Florida

- Study to compare outcome to determine patient safety between offices and ambulatory surgicenter (ASC)
- All adverse incidents reviewed (April 2000 – April 2002)
- Approximately **10-fold increased risk of adverse incident and death in an office based setting**

ASA Closed Claim Project 1996

Office-based

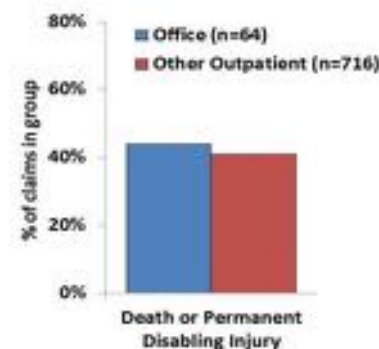
- Death: 64%
- Temporary injury: 21%

Ambulatory

- Death: 21%
- Temporary injury: 62%

1996-2011

- Death: 27%
- Perm disabling injury: 17%



**Very similar
rates between
OBA and ASC**

Office-Based Anesthesia: Safety and Outcomes

Fred E. Shapiro, DO,* Nathan Punwani, MD,† Noah M. Rosenberg, MD,‡ Arnaldo Valedon, MD,§
Rebecca Twersky, MD, MPH,|| and Richard D. Urman, MD, MBA¶ (Anesth Analg 2014;119:276–85)

The increasing volume of office-based medical and surgical procedures has fostered the emergence of office-based anesthesia (OBA), a subspecialty within ambulatory anesthesia. The growth of OBA has been facilitated by numerous trends, including innovations in medical and surgical procedures, greater convenience, and the ability to perform procedures in a more comfortable setting.

There is a lack of randomized controlled trials

how office-based procedures and anesthesia affect patient morbidity and mortality. As a result, studies on this topic are retrospective in nature. Some of the early literature broaches concerns about the safety of office-based procedures and anesthesia. However, more recent data have

Enhance quality of care by engaging in proper procedure and patient selection, provider credentialing, facility accreditation, and incorporating patient safety checklists and professional society guidelines into practice.

ingly important as more states, and possibly the federal government, exercise regulatory authority over the ambulatory setting. We explore these trends, their implications for patient safety, strategies for minimizing patient complications and mortality in OBA, and future developments that could impact the field. (Anesth Analg 2014;119:276–85)

Provider Checklist

Safety Checklist for Office-Based Surgery

from the Institute for Safety in Office-Based Surgery (ISOBS)



Introduction	Setting	Operation	Before discharge	Satisfaction
Preoperative encounter, with practitioner and patient	Before patient in procedure room, with practitioner and personnel	Before sedation/analgesia, with practitioner and personnel*	On arrival to recovery area, with practitioner & personnel	Completed post-procedure, with practitioner and patient
<i>Patient</i> Patient medically optimized for the procedure? ☐ Yes ☐ No, and plan for optimization made. Does patient have DVT risk factors? ☐ Yes, and prophylaxis plans arranged. ☐ No <i>Procedure</i> Procedure complexity and sedation/analgesia reviewed? ☐ Yes NPO instructions given? ☐ Yes Escort and post-procedure plans reviewed? ☐ Yes	Emergency equipment check complete (e.g. airway, AED, code cart, MH kit)? ☐ Yes EMS availability confirmed? ☐ Yes Oxygen source and suction checked? ☐ Yes Anticipated duration ≤ 6 hours? ☐ Yes ☐ No, but personnel, monitoring and equipment available	Patient identity, procedure, and consent confirmed? ☐ Yes Is the site marked and side identified? ☐ Yes ☐ N/A DVT prophylaxis provided? ☐ Yes ☐ N/A Antibiotic prophylaxis administered within 60 minutes prior to procedure? ☐ Yes ☐ N/A Essential imaging displayed? ☐ Yes ☐ N/A Practitioner confirms verbally: ☐ Local anesthetic toxicity precautions ☐ Patient monitoring (per institutional protocol). ☐ Anticipated critical events addressed with team. ☐ Each member of the team has been addressed by name and is ready to proceed.	Assessment for pain? ☐ Yes Assessment for nausea/vomiting? ☐ Yes Recovery personnel available? ☐ Yes <i>Prior to discharge, (with personnel and patient)</i> Discharge criteria achieved? ☐ Yes Patient education and instructions provided? ☐ Yes Plan for post-discharge follow-up? ☐ Yes Escort confirmed? ☐ Yes	Unanticipated events documented? ☐ Yes Patient satisfaction assessed? ☐ Yes Provider satisfaction assessed? ☐ Yes

Featured in 2016 in ASHRM resource manual for Office-Based Surgery

Published AORN J 2013



Effect of an Office-Based Surgical Safety System on Patient Outcomes

Published December 25, 2012

Noah M. Rosenberg, MD,^a Richard D. Urman, MD, MBA,^b Sean Gallagher, MD,^c John Stenglein, MD,^d Xiaoxia Liu, MS,^b and Fred E. Shapiro, DO^d

- 28-element perioperative ISOBS checklist
- Customized to an office-based plastic surgery
- 219 cases
- Baseline and post-op adverse outcomes
- post-checklist implementation chart review

Additional Goals:

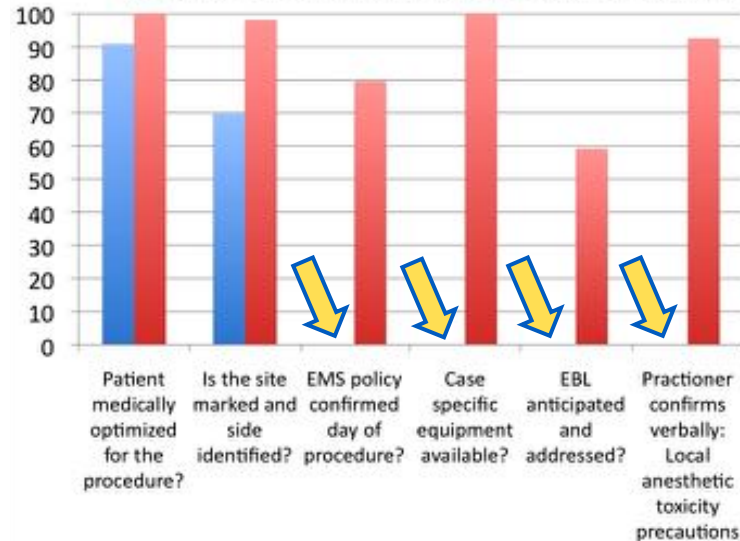
- To decrease incidence of adverse outcomes in the perioperative period
- To educate the practitioner and support staff

Study Results



- Pre-checklist, 90% missing documentation of three or more elements.
- 15% of cases had adverse events of which pain (3.7%) and bleeding/bruising (3.2%) were most common.
- Post-checklist analysis: 90-100% increase in documentation of several key indicators and practices.

**Percentage of Positive Responses
Pre- and Post-Checklist Implementation**



■ Pre-Checklist positive response

■ Post-Checklist positive response

Patient Checklist

Published *AORN J* 2013



Featured in the HPHC newsletter summer 2016 (~400,000 subscribers)

Patient's Checklist for Office-Based Procedures

from the Institute for Safety in Office-Based Surgery (ISOBS)



Inquire

What are my doctor's credentials?

Does the doctor have privileges to perform the same procedure at a hospital?

☐ Yes ☐ No

What is your doctor board-certified in?

☐ Yes ☐ No

Upcoming surgery? A safety checklist for patients

Outpatient surgery is convenient, cost-effective and performed more frequently every year. Because outpatient facilities aren't as optimally equipped as hospitals, additional safety guidelines help to ensure the best possible care for patients. As a patient, being proactive and informed are also important in getting the high-quality care you need.

Patient safety advocates Fred E. Shapiro, DO, and Joseph Foley, MD — anesthesiologists at Beth Israel Deaconess Medical Center in Boston, Massachusetts — offer the following advice to patients.

As with flying, when we trust plane our lives to the expertise of the pilot, undergoing any surgical procedure involves a certain level of trust. While many procedures have been performed in outpatient facilities, it's also important to understand what the procedure involves and how you can best prepare for it.

Understanding your doctor's experience, asking questions and knowing what to expect in advance will go a long way in helping you feel more confident and ready. (Remember that patients who are prepared and informed are more satisfied with the experience. It also is helpful to ask questions in advance and consider what your health care team

Example questions you may wish to ask the doctor before your procedure:

Will you oversee this facility? Is it licensed and accredited for this procedure?

Will I get written instructions when I'm discharged?

What kind of anesthesia will I be having (local, general or other)?

What will be going on with anesthesia?

Given my history and current health conditions, what can I do to be best prepared physically for my surgery?

What happens if there is a problem in surgery? Are the right resources on hand at this location if complications arise?

What should I expect afterward, e.g. length of recovery, pain management and follow-up care?

What exactly is outpatient surgery?

Outpatient surgery (also called ambulatory surgery) allows a person to return home on the same day a procedure is performed. Outpatient surgery is a convenient option when an overnight stay or the full services of a hospital are not required for a person's procedure or recovery.

Download a safety checklist for your next outpatient procedure at harvardpilgrim.org/yourhealth.

MORE ABOUT DR. SHAPIRO AND FOLEY

Dr. Shapiro is President of the Massachusetts Medical Society Suffolk District, Chair of the American Society of Anesthesiologists Committee on Patient Safety & Education, a founder of the Institute for Safety in Office-Based Surgery and Assistant Professor of Anesthesia at Harvard Medical School. Dr. Foley is a board-certified anesthesiologist.



Safety in office-based anesthesia: an updated review of the literature from 2016 to 2019

Andres de Lima^a, Brian M. Osman^b, and Fred E. Shapiro^a

- New: ASA/SAMBA statements and guidelines
- New: Cognitive aid resource for emergencies
- New: safety in cosmetic, dermatology, dental ophthalmology, ORL, vascular procedures
- Low complication rates: proper patient selection
- Review: 17 states lack regulation, adverse event reporting; limit outcome analysis

Dental Anesthesia



Office-Based Anesthesia: Safety and Outcomes in Pediatric Dental Patients

Allison L. Spera, DMD, MS,* Mark A. Saxen, DDS, PhD,† Juan F. Yepes, DDS, MD, MPH, MS, DrPH,‡ James E. Jones, DMD, MSD, EdD, PhD,§ and Brian J. Sanders, DDS, MS||

*Pediatric Dental Resident, Department of Pediatric Dentistry, Riley Hospital for Children/Indiana University School of Dentistry, Indianapolis, Indiana, †Adjunct Clinical Associate Professor, Department of Oral Pathology, Medicine and Radiology, Indiana University School of Dentistry, Indianapolis, Indiana, ‡Associate Professor of Pediatric Dentistry, Riley Hospital for Children/Indiana University School of Dentistry, Indianapolis, Indiana, §Starkey Research Professor and Chair, Department of Pediatric Dentistry, Riley Hospital for Children/Indiana University School of Dentistry, Adjunct Clinical Professor of Pediatrics, Indiana University School of Medicine, Indianapolis, Indiana, and ||Program Director and Professor, Department of Pediatric Dentistry, Riley Hospital for Children/Indiana University School of Dentistry, Indianapolis, Indiana

- 4-year period, 2010–2014
- 7041 cases, 196 (3.0%) adverse events
- Pre discharge: laryngospasm; 35 cases (0.50%)
- Post discharge: nausea: 99 cases (5%)
- Support safety of office-based anesthesia performed by dentist anesthesiologists in the treatment of pediatric dental patients.





Cosmetic Liposuction: Preoperative Risk Factors, Major Complication Rates, and Safety of Combined Procedures

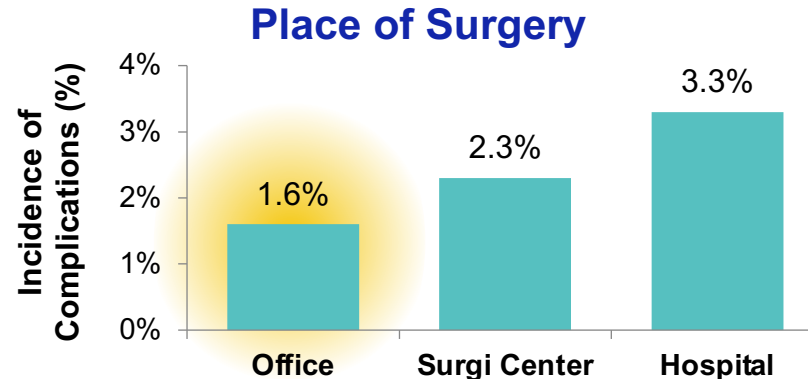
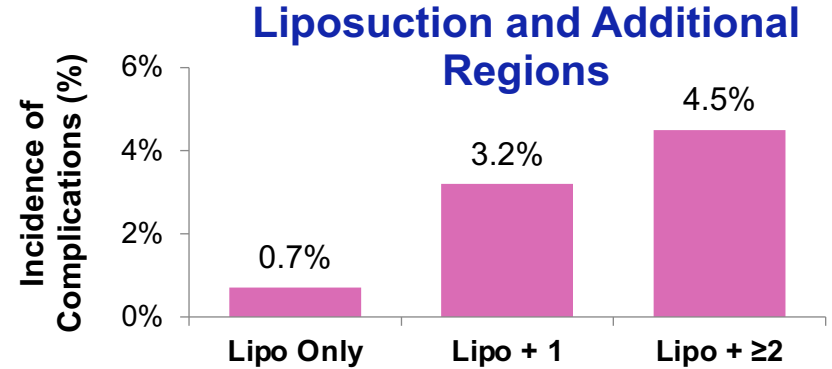
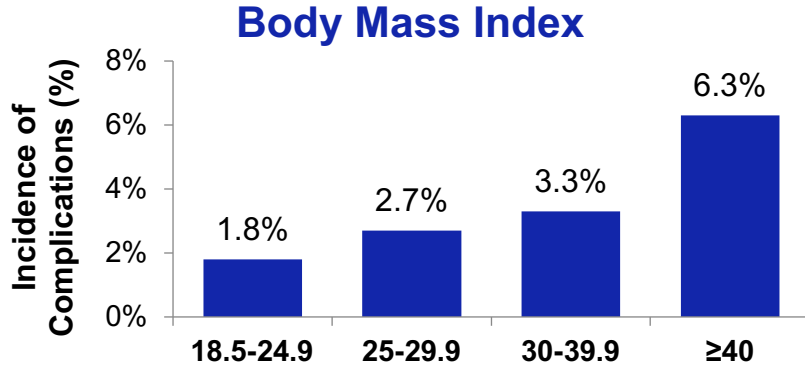
Christodoulos Kaoutzanis, MD; Varun Gupta, MD, MPH;
Julian Winocour, MD; John Layliev, MD; Roberto Ramirez, MD;
James C. Grotting, MD, FACS; and Kent Higdon, MD, FACS

Aesthetic Surgery Journal
2017; Vol 37(6) 680-694
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journals.permissions@oup.com
DOI: 10.1093/asj/sjw243
www.aestheticsurgeryjournal.com
OXFORD
UNIVERSITY PRESS

- **CosmetAssure data 2008-2013: 31,010 liposuction procedures**, 11,490 (37.1%) solitary procedures.
- Liposuction alone major complications: 0.7%: hematoma (0.15%), pulmonary complications (0.1%), infection (0.1%), and confirmed venous thromboembolism (VTE) (0.06%)
- **Combined procedures, especially on obese or older individuals, can significantly increase complication rates.** The impact of liposuction on the risk of hematoma in combined procedures needs further investigation.
- **Independent predictors of major complications:**
 - **combined procedures (RR 4.81)**
 - **age (RR 1.01)**
 - **BMI (RR 1.05)**
 - **procedures performed in hospitals (RR 1.36)**

Risk Factors for Liposuction

Kaoutzanis C et al. Anesthetic Surgery Journal 2017; 37(6):680-694



$P < 0.05$

Interventional Vascular Center



Treatment outcomes and lessons learned from 5134 cases of outpatient office-based endovascular procedures in a vascular surgical practice

Vascular
0(0) 1–8
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sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1708538116657506
vas.sagepub.com
SAGE

Peter H Lin^{1,2}, Keun-Ho Yang^{3,4}, Kenneth R Kollmeyer³, Pablo V Uceda³, Craig A Ferrara³, Robert W Feldtman³, Joseph Caruso³, Karen Mcquade³, Jasmine L Richmond³, Cameron E Kliner³, Kaitlyn E Egan³, Walter Kim², Marius Saines², Rhoda Leichter² and Samuel S Ahn^{2,4}

- This study analyzed treatment outcomes of procedures performed in our office-based endovascular suite.
- Treatment outcomes of 5134 consecutive procedures performed in office-based endovascular suites from 2006 to 2013.
- Procedures performed included **diagnostic arteriogram, arterial interventions, venous interventions, dialysis access interventions, and venous catheter management.**

Endovascular procedures can be performed safely in an office-based facility with excellent outcomes.

Mobile Anesthesiology

Example: **Centurion Anesthesia**, since 2010

- > 60 Active Anesthesiologists
- 85% Board Certified 30% fellowship trained
- > 40 Active CRNAs
- **7 States (NY, NJ, CT, MA, FL, CA & IL)**
- Typical day: 20-35 locations

2019 Office-Based Procedures

2019 Most Common

- **Urology**
 - Urolift and REZUM
 - High Frequency Ultrasound
- **Vascular Surgery**
 - Uterine Fibroid **Embolization**
 - Angiogram/**Angioplasty**/Atherectomy
- **Ophthalmology**

Procedures (2014)

- Orthopedics
- Pain management
- GI
- ENT
- Podiatry
- GYN
- Dental procedures
- Plastic Surgery

ASA Manual: Considerations for Setting up and maintaining a safe office-based anesthesia environment 2009

Administration and Facility

- Facility Classification
- Provider Credentialing
- Records and Documentation
- Quality Improvement
- Facility and Safety
- Controlled Medications
- Practice Management

Clinical Care

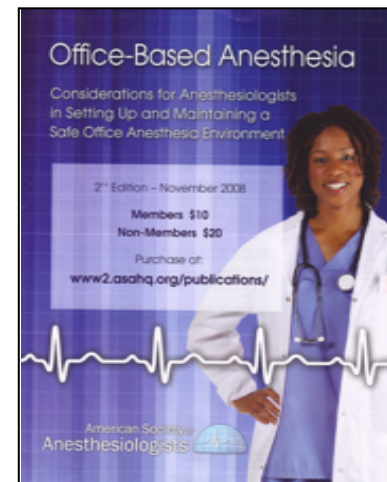
- Procedure Selection
- Patient Selection
- Perioperative Care
- Monitoring and Equipment
- Pediatric Patients
- Dental Anesthesia
- Emergencies
- Transfer of Care

Resource Materials

- References
- ASA Standards Guidelines and Statements
- Federal Rules and Regulations
- State Regulations
- Organizations

Appendices

- ASA OBA Guidelines
- ASA Statement on Qualifications of Anesthesia Providers in Office-Based Setting
- Algorithms for Emergency Situations



Accreditation of Ambulatory Facilities

Richard D. Urman, MD, MBA*, Beverly K. Philip, MD

Anesthesiology Clin 32 (2014) 551–557

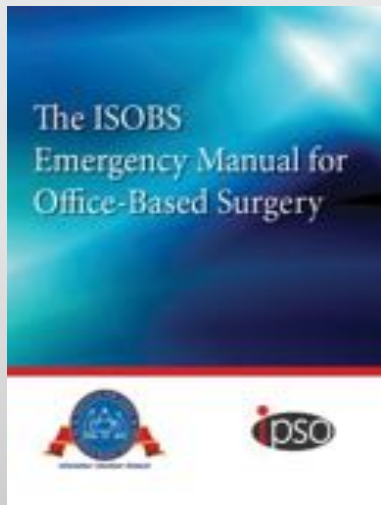
<http://dx.doi.org/10.1016/j.anclin.2014.02.016>

anesthesiology.theclinics.com

1932-2275/14/\$ – see front matter © 2014 Elsevier Inc. All rights reserved.

- Accreditation provides:
 - external validation of safe practices,
 - benchmarking performance against other accredited facilities
 - demonstrates to patients and payers the facility's commitment to continuous quality improvement

ISOBS Office-based Emergency Manual



<https://www.emergencymanuals.org/tools-resources/free-tools/>

Office-based Emergency Manual

ACLS	Critical events
Cardiac arrest- VF/VT	Allergies
Cardiac arrest- PEA/asystole	Anaphylaxis (adult + ped dosing)
Bradycardia- unstable	Difficult airway
Tachycardia- unstable	Hemorrhage
PALS	Hypercarbia
Cardiac arrest- VF/VT	Hypotension (adult + ped dosing)
Cardiac arrest- PEA/asystole	Hypoxia
Bradycardia- unstable	LAST (adult + ped dosing)
Tachycardia- unstable	Loss of access
Emergency	Mental status change
Fire- airway or surroundings	MH (adult + ped dosing)
Evacuation and preparedness	Spinal Anesthesia: General Complications
Loss of Oxygen	Administrative
Loss of Power	Transfer of care MH patient
	Transfer of care non-MH patient

- The practice has a **license or registration to conduct its scope of service**
- The **test, treatments, or interventions** provided **prescribed or ordered by a licensed independent practitioner in accordance with state and federal requirements.**
- The practice must be **surgeon-owned or surgeon-operated.**
- The **practice provides invasive procedures to patients.**
- **Local anesthesia, minimal sedation, moderate sedation or general anesthesia.** (Includes laser eye surgery using topical anesthesia)

Revised Survey Eligibility Criteria for Office-Based Surgery



The Joint Commission's Accreditation Committee recently approved revised eligibility criteria for organizations surveyed under the Office-Based Surgery program. These revisions are the result of a comprehensive review of the survey eligibility criteria to ensure that they are current and relevant for organizations seeking accreditation or reaccreditation. For organizations first seeking accreditation*, several questions have been added to the electronic application for accreditation (E-App) that require applicants to make certain annotations regarding their backgrounds.

Any office-based surgery organization may apply for Joint Commission accreditation if all the following eligibility requirements are met:

- The organization is in the United States or its territories or, if outside the United States, is operated by the U.S. government or under a charter of the U.S. Congress.
- If required by law, the organization has a license or registration to conduct its scope of services. The organization can demonstrate that it continually assesses and improves the quality of its care, treatment, and/or services. This process includes a review by clinicians, including those knowledgeable in the type of care, treatment, and/or services provided at the organization.
- The organization identifies the services it provides, indicating which care, treatment, and/or services it provides directly, under contract, or through some other arrangement.
- The organization provides services that can be evaluated by The Joint Commission's standards.
- The tests, treatments, or interventions provided at the organization are prescribed or ordered by a licensed independent practitioner¹ in accordance with state and federal requirements.
- The organization meets parameters for the minimum number of patients/volume of services required for organizations seeking Joint Commission initial or reaccreditation; that is, three patients served, with at least one patient having a procedure at the time of survey.
- The organization is limited to business occupancy, which is defined as an occupancy that can only have three or fewer individuals at the same time, who are either rendered incapable of self-preservation in an emergency or are undergoing general anesthesia.
- The organization must be surgeon-owned or surgeon-operated (for example, a professional services corporation, private physician office, or small group practice).
- The organization provides invasive procedures to patients. Local anesthesia, minimal sedation, conscious sedation, or general anesthesia are administered. (Excluded are practices that limit procedures to excisions of skin lesions, moles, and warts and abscess drainage limited to the skin and subcutaneous tissue.)

Questions may be directed to your account executive (830-792-3007) for current customers or to Business Development for applicants (830-792-3259).

¹ Organizations that are new to The Joint Commission include those that have never been surveyed by The Joint Commission or have not been accredited for at least four months.

² A licensed independent practitioner is an individual permitted by law and by the organization to provide care, treatment, or services without direction or supervision. A licensed independent practitioner operates within the scope of his or her license, consistent with individually granted clinical privileges. When standards reference the term licensed independent practitioner, this language is not to be construed to limit the authority of a licensed independent practitioner to other qualified health care personnel (for example, physician assistants and advanced practice registered nurses) to the extent authorized by state law, or a state's regulatory mechanisms, or federal guidelines, and by organizational policy.

National Patient Safety Goals Effective January 2019

Office-Based Surgery Accreditation Program

- **Goal 1: Improve the accuracy of patient identification.**
 - Use at least two patient identifiers when providing care, treatment, or services.
 - Eliminate transfusion errors related to patient misidentification.
- **Goal 3: Improve the safety of using medications.**
 - Label all medications, medication containers, and other solutions on and off the sterile field in perioperative and other procedural settings.
 - Maintain and communicate accurate patient medication information.
- **Goal 7: Reduce the risk of health care–associated infections.**
 - Comply with either the current Centers for Disease Control and Prevention (CDC) hand hygiene guidelines or the current World Health Organization (WHO) hand hygiene guidelines.
 - Implement evidence-based practices for preventing surgical site infections.
- **Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery**
 - Conduct a preprocedure verification process.
 - Mark the procedure site.
 - A time-out is performed before the procedure.



APPROVED: New and Revised Pain Assessment and Management Standards

Effective January 1st, 2019, new standards applicable to Joint Commission accredited ambulatory care organizations, critical access hospitals, and office-based surgery practices.



Changes to Requirements for Organizations Providing Fluoroscopy Services

New standards for fluoroscopy, computed tomography units, and establishes a **radiation safety officer**. These were created to clarify expectations and address areas of risk associated with imaging.

Office Based Surgery Alert:

Annual Practice Report

What? Public Health Law § 230-d(4)(b) provides the New York State Department of Health (NYSDOH) with the authority to require Office Based Surgery (OBS) practices to report procedural information and other data as needed for the interpretation of adverse events. The NYSDOH intends to propose a regulation that would require reporting of such additional information.

In the interest of patient safety, and to ensure compliance readiness with respect to the upcoming regulations, the NYSDOH strongly encourages all OBS practices to report this additional information for calendar year 2017. The OBS program has developed an online annual reporting tool so that OBS practices may submit this data. The reporting tool's twelve questions include requests for practice descriptors, such as National

Reporting of Adverse Events: *When?* The initial reporting period will be from March 31, 2018 through June 30, 2018. OBS practices should report their 2017 data during this period using the electronic reporting tool.

Safety (OQPS) in evaluating adverse events reported by OBS practices across the state. The NYSDOH will also make de-identified, aggregated data available to OBS practices and stakeholders, to increase awareness about adverse events and to facilitate OBS quality improvement.

ASA Legislative Report 2018-19



ASA Statements and Guidelines

www.asahq.org

- Ambulatory/ OBA guidelines
- Distinguishing MAC vs moderate sedation
- Statement on qualifications of anesthesia providers in the office-based setting
- ASA Statement on Sedation & Anesthesia Administration in Dental Office-Based Settings
- Practice Guidelines for Moderate Procedural Sedation and Analgesia 2018

Practice Guidelines for Moderate Procedural Sedation and Analgesia 2018

A Report by:

- American Society of Anesthesiologists Task Force on Moderate Procedural Sedation and Analgesia
- American Association of Oral and Maxillofacial Surgeons
- American College of Radiology
- American Dental Association
- American Society of Dentist Anesthesiologists
- Society of Interventional Radiology*

Moderate Sedation: New Recommendations

- Patient evaluation and preparation.
- **Continual monitoring of ventilatory function with capnography to supplement standard monitoring by observation and pulse oximetry.**
- **The presence of an individual in the procedure room with the knowledge and skills to recognize and treat airway complications.**
- Sedatives and analgesics not intended for general anesthesia (e.g., benzodiazepines and dexmedetomidine).
- Sedatives and analgesics intended for general anesthesia (e.g., propofol, ketamine, and etomidate).
- Recovery care.
- Creation and implementation of quality improvement processes.

2019: Pediatric Sedation management before, during, after diagnostic and therapeutic procedures

- Guidance **AAP, AAPD, ASA** - endorsed
- Facility or hospital
- **Two persons in room-** proper training and credentials- while pt undergoing dental treatment under deep sedation /GA
- Qualified anesthesia personnel= **physician anesthesiologist, CRNA, dentist anesthesiologist, second oral surgeon**
- **One person** sole responsibility- constantly **observe patient** vital signs; skilled in emergencies
- **Both** dentist and independent observer- **PALS certified**

Cote C, Wilson S, American Academy of Pediatrics and Pediatric Dentistry , Pediatrics 2019: 143; 1-31.

Sux, MH, and Dantrolene

- If the office does NOT use Succinylcholine or inhalation agents?
- Does it need to stock Dantrolene/Ryanodex?

Succinylcholine for Emergency Airway Rescue in Class B Ambulatory Facilities: The Society for Ambulatory Anesthesia Position Statement

Girish P Joshi, MBBS, MD, FFARCSI,* Meena S. Desai, MD,† Steven Gayer, MD, MBA,‡ and Hector Vila, Jr, MD,§ on behalf of the Society for Ambulatory Anesthesia (SAMBA)

May 2017 • Volume 124 • Number 5

www.anesthesia-analgesia.org 1447

- Procedures in class B ambulatory facilities are performed exclusively with oral or intravenous sedation. **...in the absence of succinylcholine, the morbidity and mortality from laryngospasm can be significant ...** typically ant available.
- This article states that in the absence of succinylcholine, the morbidity and mortality from laryngospasm can be significant ... **higher than succinylcholine-triggered malignant hyperthermia** t, triggered malignant hyperthermia.

State Law Approaches to Facility Regulation of Abortion and Other Office Interventions

Bonnie S. Jones, JD, Sara Daniel, MPH, and Lindsay K. Cleud, JD

- Supreme Court 2016 decision
- Whole Woman's Health vs Hellerstedt
- Questioned: Constitutionality of **TRAP (Targeted Regulation of Abortion provider) Laws vs current OBS laws**
- Texas TRAP law - **licensed ASC facility; hospital admitting privileges**
- Conclusions: Many states regulate **abortion-providing facilities more stringently** than facilities providing other office interventions

TABLE 2—Requirements in State Facility Laws for Office Interventions Generally (OBS) and Abortion Specifically (TRAP), as of August 1, 2016: United States

Requirement	OBS Laws (n = 25), %	Abortion Facility and ASC-Type TRAP Laws ^a (n = 39), %	<i>p</i> ^b
Facility licensing and accreditation			
Facility accreditation only	32	0	< .001
State licensing of facility only	16	92	< .001
Both licensing and accreditation	8	0	.15
Neither licensing nor accreditation specified	44	8	< .001
Specialized rooms ^c			
Operating room	16	21	.75
Procedure room	4	51	< .001
Separate recovery room	16	51	.007
Separate instrument processing rooms	12	33	.08
None of these rooms specified	80	28	< .001
Physical plant specifications ^c			
Specific hallway and doorway widths	8	36	.017
Emergency power beyond backup lighting	24	36	.41
Specific ventilation and temperature	8	21	.29
None of these features specified	76	49	.039
Required physician qualifications			
Must meet specific qualification(s)	8	28	.06
May demonstrate competency by various means	40	0	< .001
No physician qualifications specified	52	72	.12
Requirements for specified levels of nursing staff	28	74	< .001

Other required policies and procedures

Infection control	72	85	.34
Quality assurance	40	69	.037
Preventive maintenance	48	62	.31
Disaster preparation	32	74	.002
Peer review of physicians	20	15	.74
Patient satisfaction assessment	4	8	> .99
None of these policies and procedures specified	12	10	> .99

Required arrangements to facilitate patient transfers^d

Plan or protocol	40	10	.011
Transfer agreement	36	54	.20
Admitting privileges	4	18	.14
Admitting privileges and transfer agreement	0	15	.07
No arrangements for patient transfers specified	20	3	.030

Penalties for noncompliance

Criminal	12	41	.023
Fines	20	67	< .001
Facility licensing sanctions	24	90	< .001
No penalties specified	72	5	< .001

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Ambulatory surgery: is the liability risk lower?

Julia Metzner and Christopher D. Kent

Curr Opin Anesthesiol 2012, 25:654-658

Due to the changing landscape of ambulatory practice that permits care for sicker patients who require more complex surgeries... anesthesiologists are confronted with new areas of liability.

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Summary
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Adult Patient Selection: Office-Based Anesthesia

Richard D. Urman, MD, MBA, FASA

Associate Professor

Department of Anesthesiology, Perioperative and Pain Medicine

Brigham and Women's Hospital

Harvard Medical School

Boston, MA

the
ANESTHESIOLOGY.
annual meeting



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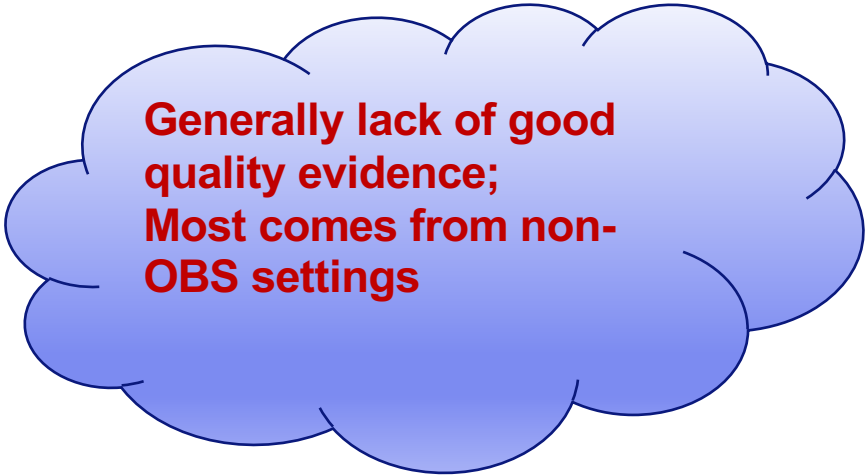
Goals and Objectives

- Recognize the importance of adult patient selection in OBS
- Evidence-based review of the literature on patient outcomes
- Develop patient selection criteria for your OBS practice

Patient Selection: What's Important?

Do we have any evidence for the OBS (vs. other ambulatory settings):

- Patients at risk for DVT/PE?
- Social/psychological History?
- Cognitively Impaired
- Morbid obesity?
- OSA/ COPD?
- Renal or Liver Disease?
- CAD?
- HTN?
- Substance use/Chronic pain?
- DM?
- Airway issues?
- Multiple drug allergies/side effects?
- MH-susceptible?
- No adult escort



**Generally lack of good
quality evidence;
Most comes from non-
OBS settings**

TABLE I Ambulatory patient selection criteria – agreement or

TABLE II Ambulatory patient selection criteria with over 75% agreement

Ambulatory surgery adult patient selection criteria – a survey of Canadian anesthesiologists

AF II	70.4	4.7
AP III	66.3	32.8
AP IV	4.0	95.3
Prior MI (one to six months)	15.9	83.1
Prior MI (more than six months)	94.8	3.9
CHF I	93.5	6.1
CHF II	70.3	29.3
CHF III	16.7	82.6
CHF IV	1.3	98.4
Asymptomatic valvular disease	93.4	5.3
Sleep apnea - monitored anesthesia care (MAC)	91.5	7.2
Sleep apnea - RA w/o narcotics	97.0	2.7
Sleep apnea - RA with narcotics postop	35.3	64.0
Sleep apnea - GA w/o narcotics postop	63.4	36.0
Sleep apnea - GA with narcotics postop	14.7	84.2
Morbid obesity (BMI = 35–44 kg·m ²) w/o CVS or respiratory co-morbidity	91.0	9.0
Morbid obesity (BMI = 35–44 kg·m ²) with CVS or respiratory co-morbidity	18.1	81.7
Morbid obesity (BMI > = 45 kg·m ²) w/o CVS or respiratory co-morbidity	49.5	50.1
Morbid obesity (BMI > = 45 kg·m ²) with CVS or respiratory co-morbidity	4.7	95.2
Insulin dependent diabetes mellitus	92.8	6.6
Malignant hyperthermia susceptible	82.0	17.6
Proven malignant hyperthermia	49.7	49.5
Substance abuse	69.0	29.8
Monoamine oxidase inhibitor treatment	69.5	29.6
Sickle cell anemia	53.2	45.5
Chronic renal failure	72.2	27.4
Age > 90	59.6	39.8
No escort	11.2	88.1

AF II (more than six months)	74.8
CHF I	94.8
Asymptomatic valvular disease	91.5
Sleep apnea - MAC (monitored anesthesia care)	97.0
Sleep apnea - RA w/o narcotics	91.0
Morbid obesity (BMI = 35–44 kg·m ²) w/o CVS or respiratory complications	92.8
Insulin dependent diabetes mellitus	82.0
Malignant hyperthermia susceptible	

CAN J ANESTH 2004 / 51: 5 / pp 437–443

ASA = American Society of Anesthesiologists physical status; AP = angina pectoris; Canadian Cardiovascular Society Functional Classification; MI = myocardial infarction; CHF = congestive heart failure - New York Heart Association Classification; RA = regional anesthesia; BMI = body mass index; CVS = cardiovascular.

TABLE III Ambulatory patient selection criteria with over 75% agreement NOT to proceed with surgery

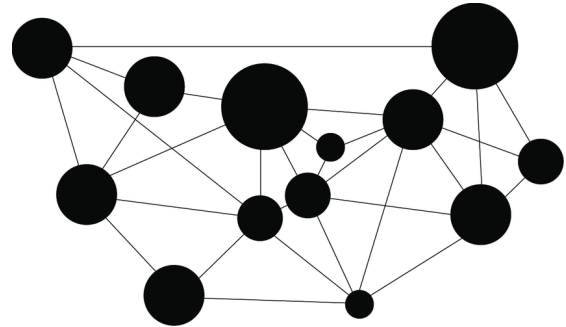
Prevalent condition	%
ASA IV	82.4
AP IV	95.3
Prior MI (one to six months)	83.1
CHF III	82.6
CHF IV	98.4
Sleep apnea - GA with narcotics postop	84.2
Morbid obesity (BMI = 35–44 kg·m ²) with CVS or respiratory complications	81.7
Morbid obesity (BMI > = 45 kg·m ²) with CVS or respiratory complications	95.2
No escort	88.1

Friedman
Zeev,
Chung

Patient Selection

Patient Selection is also contingent on the following factors:

1. Conditions of the facility
2. Procedure planned
3. Medical condition of the patient
4. Skill of the surgeon
5. Skill of the anesthesiologist
6. Anesthetic technique required



Koch ME, Dayan S, Barinholtz D. Office-based anesthesia: an overview. *Anesthesiol Clin North America*. 2003 Jun;21(2):417-43.

A Comparison between office and other ambulatory practices: Analysis from the National Anesthesia Clinical Outcomes Registry

By Samir R. Jani, MD, MPH,
Fred E. Shapiro, DO,
Rodney A. Gabriel, MD,
Hubert Kordylewski,
Richard P. Dutton, MD, MBA,
and Richard D. Urman,
MD, MBA

Table 1: Patient Demographics in Office and Ambulatory Settings as Stratified Annually by Age and Sex, 2010–2014

Age	Office-Based Cases (% of total by year)					Ambulatory Cases (% of total by year)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
<1	49 (0.4%)	42 (0.3%)	292 (0.8%)	108 (0.3%)	175 (0.2%)	12 124 (2.0%)	13 423 (1.9%)	17 096 (1.9%)	18 846 (1.7%)	14 485 (1.2%)
1–18	782 (5.9%)	814 (5.3%)	2622 (7.2%)	2927 (9.1%)	3981 (4.9%)	75 113 (12.5%)	84 837 (12.2%)	107 084 (11.8%)	113 976 (10.4%)	99 262 (8.2%)
19–49	6780 (51.1%)	7521 (49%)	13 950 (38.6%)	12 033 (37.4%)	23 953 (29.3%)	177 041 (29.6%)	206 151 (29.7%)	265 545 (29.2%)	286 035 (26%)	299 724 (24.7%)
50–64	4204 (31.7%)	5019 (32.7%)	12 193 (33.7%)	12 157 (37.8%)	32 969 (40.3%)	160 765 (26.8%)	190 245 (27.4%)	251 772 (27.7%)	319 691 (29%)	370 347 (30.5%)
65–79	1259 (9.5%)	1647 (10.7%)	5120 (14.2%)	4336 (13.5%)	17 471 (21.4%)	132 982 (22.2%)	153 718 (22.2%)	210 101 (23.1%)	288 462 (26.2%)	341 923 (28.2%)
>80	202 (1.5%)	298 (1.9%)	2000 (5.5%)	591 (1.8%)	3208 (3.9%)	40 873 (6.8%)	44 976 (6.5%)	56 985 (6.3%)	73 526 (6.7%)	86 817 (7.2%)
Total	13 276	15 341	36 177	32 152	81 757	598 898	693 350	908 583	1 100 536	1 212 558
Sex										
Female	8302 (62.5%)	9461 (61.6%)	21 079 (59.5%)	19 080 (58.9%)	48 613 (59.5%)	345 037 (57.9%)	400 887 (57.6%)	521 419 (57%)	611 734 (55.9%)	665 381 (55.8%)
Male	4976 (37.5%)	5899 (38.4%)	14 335 (40.5%)	13 321 (41.1%)	33 122 (40.5%)	251 327 (42.1%)	294 987 (42.4%)	393 145 (43%)	481 807 (44.1%)	526 737 (44.2%)
Total	13 278	15 360	35 414	32 401	81 735	596 364	695 874	914 564	1 093 541	1 192 118

A Comparison between office and other ambulatory practices: Analysis from the National Anesthesia Clinical Outcomes Registry

By Samir R. Jani, MD, MPH,
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MD, MBA

ASA Physical Status	Office-Based Cases (% of total by year)					Ambulatory Cases (% of total by year)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
1	1703 (37%)	2558 (41.3%)	5392 (21.9%)	6484 (32.1%)	13623 (34.6%)	236739 (53.6%)	296972 (54.1%)	391786 (50.1%)	509344 (53%)	429700 (42.2%)
2	2035 (44.2%)	2576 (41.5%)	11365 (46.2%)	10515 (52.1%)	12792 (32.4%)	132515 (30%)	164437 (29.9%)	247537 (31.7%)	281202 (29.3%)	368701 (36.2%)
3	851 (18.5%)	1046 (16.9%)	6100 (24.8%)	3135 (15.5%)	12684 (32.2%)	69735 (15.8%)	83246 (15.2%)	134772 (17.2%)	162868 (16.9%)	209239 (20.6%)
4	15 (0.3%)	20 (0.3%)	1687 (6.9%)	49 (0.2%)	321 (0.8%)	2444 (0.6%)	4509 (0.8%)	7284 (0.9%)	7485 (0.8%)	9590 (0.9%)
5	—	—	72 (0.3%)	—	3 (0.01%)	77 (0.02%)	76 (0.01%)	184 (0.02%)	156 (0.02%)	108 (0.01%)
6	—	—	6 (0.02%)	—	—	103 (0.02%)	58 (0.01%)	53 (0.01%)	48 (0.00%)	27 (0.00%)
Total	4604	6200	24622	20183	39423	441613	549298	781616	961103	1017365

OBA Closed Claims: What We Do Know

- **Female (65%), middle-age (46 + 18 yrs.), and generally healthy (79% ASA 1-2).**
- More likely to involve plastic surgery (45%) vs other outpatient claims (18%).
- Eye surgery was common (16% of OBA).
- **Most involved respiratory or equipment adverse events.**
- **Single most common adverse event leading to injury: inadequate ventilation or oxygenation (17% vs. 6% other outpatient, p=0.003).**
- Cautery fires occurred in 9% of OBA claims (same as other outpatient). Outcomes did not differ between groups, with death in 27% and permanent disabling injury in 17% of OBA claims.
- Care was more commonly substandard in OBA claims (52%) vs. other outpatient claims (37%)
- OBA claims were more likely to result in payment (72%) than other outpatient (56%, p=0.014, Fig). Payments were similar between OBA (median \$135,800) and other outpatient claims (\$211,500).

Twersky R, Posner KL, Domino KB. Liability in Office-Based Anesthesia: Closed Claims Analysis. Anesthesiology, A2078, 2013.

Is Office-Based Surgery Safe? Comparing Outcomes of 183,914 Aesthetic Surgical Procedures across Different Types of Accredited Facilities

	OBSS (n = 20,536)	ASC (n = 73,994)	Hospital (n = 34,477)	P value
Age $\pm$ SD (mean)	42.2 $\pm$ 14.0	40.2 $\pm$ 13.9	41.6 $\pm$ 13.9	<.01
BMI (kg/m ²) $\pm$ SD (mean)	24.3 $\pm$ 4.5	24.0 $\pm$ 4.4	25.1 $\pm$ 5.1	<.01
Gender, male (%)	1444 (7.0)	4697 (6.3)	2216 (6.4)	<.01
Smoker (%)	1828 (8.9)	6102 (8.2)	2691 (7.8)	<.01
Diabetic (%)	398 (16.8)	1127 (1.5)	843 (2.4)	<.01

Table 4. Multivariate Logistic Regression for any Complication

	Relative Risk	95% CI		P value
OBSS/hospital	0.59	0.52	0.68	<.01 *
OBSS/ASC	0.67	0.59	0.77	<.01 *
Age	1.01	1.00	1.01	<.01 *
BMI	1.03	1.02	1.04	<.01 *
Gender (male)	1.05	0.90	1.23	.54
Smoking	1.19	1.03	1.37	.02 *
DM	1.24	0.98	1.58	.08
Body procedure	1.57	1.44	1.72	<.01 *
Combined procedure	1.68	1.55	1.83	<.01 *

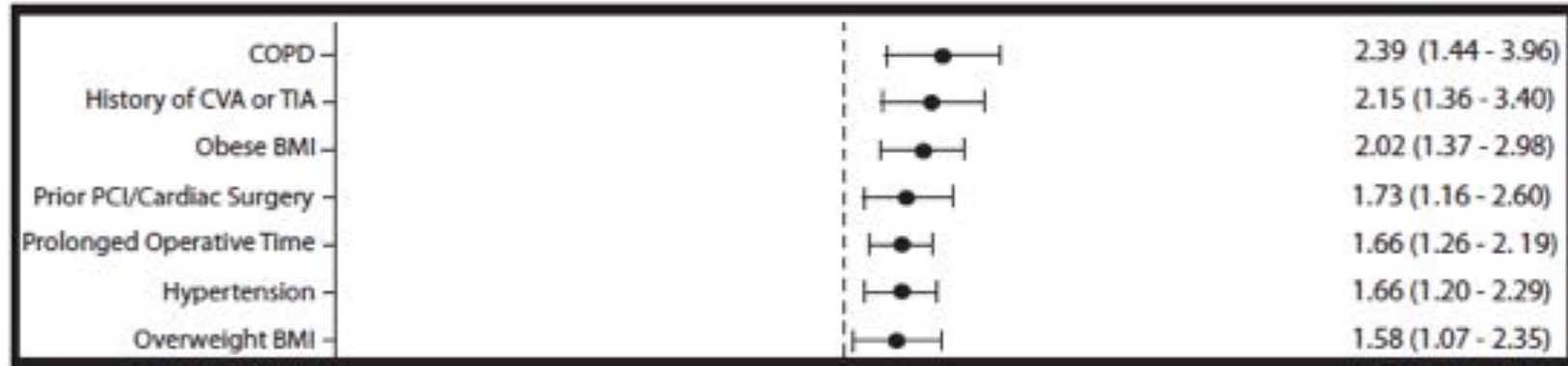
Varun Gupta, MD, MPH; Rikesh Parikh, MD; Ashkan Afshari, MD; R. Bruce Shack, MD, FA MD, FACS; and K. Kye Higdon, MD, FACS

Aesthetic Surgery Journal
2017, Vol 37(2) 226–235

lower risk of developing a complication in an OBSS

Patient Selection for Day Case-eligible Surgery

Identifying Those at High Risk for Major Complications



- Studied Predictors of 72h perioperative morbidity (NSQIP) – 244,397 cases
- Significant predictors of morbidity or mortality (all ambulatory surgery):

COPD, hx CVA or TIA, BMI, previous (PCI)/cardiac surgery, prolonged OR time, HTN

Predictors of unanticipated admission following ambulatory surgery: a retrospective case-control study

- Ambulatory surgery at 3 tertiary care Canadian hospitals
- Risk factors for **unanticipated admission** (*multiple logistic regression model*):
 - High ASA class (ASA 3: **5x higher**, ASA 4: **7x higher**)
 - Advanced age (>80: **5x higher**)
 - Length of surgery (>1 hr **4x**; >3hr: **16x higher**)
 - Increased BMI (30-34.9 only: **3x higher**)
 - No specific comorbid illness was associated with an increased likelihood of unanticipated admission.
- **So can we come up with specific objective criteria based on the data?**

Do ASA Class and Age Matter?

- From Whippey et al (2013) *“Findings support continued use of the ASA classification as a marker of patient perioperative risk rather than attributing risk to a specific disease process”*
- **ASA 3** class ok? **ASA 4** maybe not ???
- Variability among providers in which ASA class is assigned
- What about an **Age** cut off: 65, 70, 80+?
 - Should not be used alone to determine eligibility!
 - But **age >80** increases the risk (Whippey; Fleisher; Rao)
 - Consider comorbidities, social situation, cognitive status

Inpatient Hospital Admission and Death After Outpatient Surgery in Elderly Patients:

Importance of Patient and System Characteristics and Location of Care

Medicare Data

Table 3. Risk Factors for Inpatient Hospitalization Within 7 Days of Outpatient Surgery for Medicare Beneficiaries Undergoing 16 Procedures From 1995 Through 1999*

Risk Factor	Odds Ratio (95% Confidence Intervals)
African American	1.66 (1.55-1.78)
Hispanic	3.03 (2.67-3.42)
Female	0.92 (0.88-0.96)
Age, y	
70-74	1.12 (1.05-1.18)
75-79	1.30 (1.23-1.38)
80-84	1.51 (1.42-1.61)
≥85	1.89 (1.76-2.02)
Surgery at physician's office	1.59 (1.40-1.81)
Surgery at outpatient hospital	2.66 (2.49-2.84)
Prior inpatient hospital admission (per admission)	1.36 (1.32-1.39)
Type of outpatient surgery	
Transurethral resection of prostate	13.21 (12.12-14.39)
Inguinal hernia	4.45 (4.16-4.75)
Laparoscopic cholecystectomy	12.30 (11.59-13.05)
Dilation and curettage	3.87 (3.43-4.36)
Simple mastectomy	8.99 (7.16-11.29)
Radical mastectomy	16.70 (14.66-19.03)
Carpal tunnel	1.18 (1.03-1.35)
Knee arthroscopy	2.57 (2.35-2.81)
Femoral hernia	6.05 (4.66-7.84)
Hysteroscopy	2.73 (2.35-3.18)
Rotator cuff repair	7.87 (6.94-8.93)
Umbilical hernia repair	5.75 (5.01-6.60)
Arteriovenous graft placement	12.48 (11.30-13.75)
Hemorrhoidectomy	2.35 (2.03-2.72)

*Compared with a white man aged 65 to 69 years undergoing cataract surgery at an ambulatory surgery center. C statistic = 0.80.

Office-Based Outpatient Plastic Surgery Utilizing Total Intravenous Anesthesia

Colin Failey, MD

Aesth Surg J
2013;33(2):270-4

Table 1. Abdominoplasty Patient and Operative Characteristics

No. of patients	145
Female:male	141:4
Age, y, mean (range)	40.3 (19-68)
BMI, mean (range)	25.7 (18-43)
Smokers, No.	23
TIVA, No.	145
Adjunct ketamine, No.	90
ASA class I, No.	75
ASA class II, No.	70
OR time, h, mean (range)	4.0 (1.5-7.6)
Follow-up, mo, mean (range)	8.1 (0-64)

*2611 procedures were performed on 2006 pts.

*No deaths, cardiac events, or transfers to the hospital regardless of the type of sedation utilized.

*642 pts got TIVA (ppf and/or ketamine, midaz, fentanyl.

*Remaining 1364 pts received "conscious sedation".

*Only 1 case (0.05%; 1/2006) of DVT/PE in a pt who had an implant exchange under TIVA:

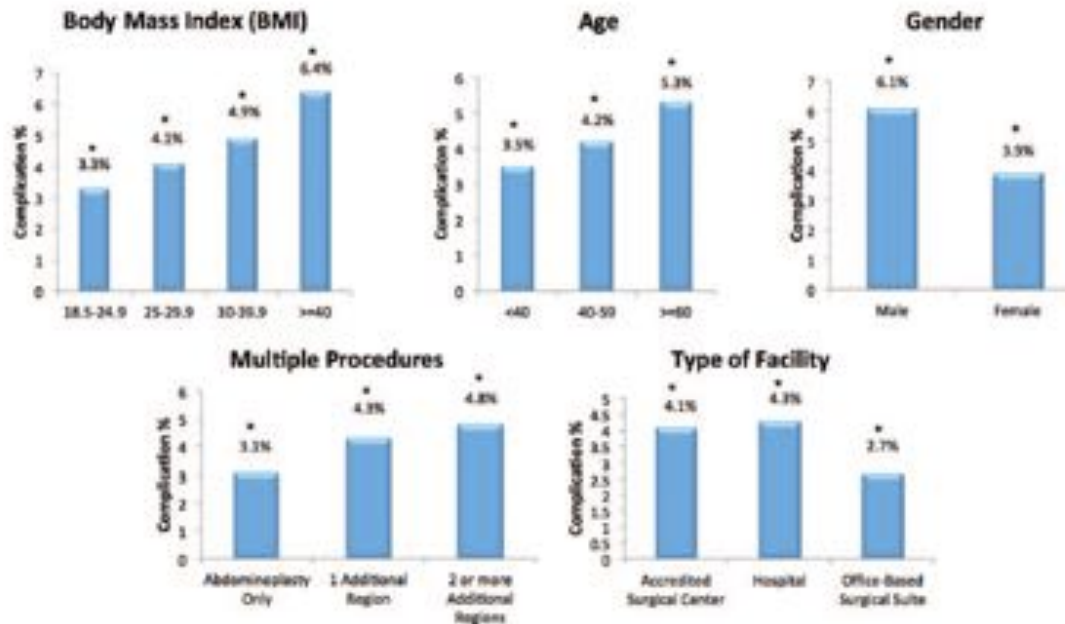
Short Term (<7 d)	No. (%)	Long Term (>7 d)	No. (%)
Nausea/vomiting	6 (4.0)	Seroma	19 (13.0)
Hematoma	2 (1.4)	Wound dehiscence	5 (3.4)
Urine retention	1 (0.7)	Suture granuloma	2 (1.4)
Pain	14 (9.6)		

- Patient was taking oral contraceptive pills.

Abdominoplasty: Risk Factors, Complication Rates, and Safety of Combined Procedures

Julian Winocour, M.D.

Plast. Reconstr. Surg. 136: 597e, 2015.



*25,478 pts underwent abdominoplasty between 2008-2013 using CosmetAssure database.

*Major complications were recorded.

Table 3. Risk Factors for Complications from Abdominoplasty*

	Relative Risk	p	95% CI
Male sex	1.8	<0.01	1.4-2.4
Facility (ASC or hospital)	1.6	<0.01	1.3-2.0
Procedure complexity	1.5	<0.01	1.3-1.7
Age ≥ 55 yr	1.4	<0.01	1.2-1.7
BMI ≥ 35	1.3	<0.01	1.1-1.5
Diabetic	1.3	0.098	0.9-1.8

ASC = Accredited Surgical Center; BMI = body mass index.

*Multivariate logistic regression

*Analysis to evaluate risk factors:
age, smoking, BMI, sex,
diabetes, type of
surgical facility, impact of
combined procedures

Other Risk Assessment Tools; useful for OBS ??

- **Perioperative Myocardial Infarction or Cardiac Arrest Risk Calculators** (Gupta PK et al; Circulation 2011;124:381-7)
- **ACS NSQIP Surgical Risk Calculators**
<http://www.riskcalculator.facs.org>
 - Enter pt (demographics, comorbidities) and procedure variables (CPT).
 - Then find out risk of major complications (death, PNA, readmission, VTE, Cardiac complications, SSI UTI...
- **ARISCAT Score for Postoperative Pulmonary Complications**
 - <https://www.mdcalc.com/ariscat-score-postoperative-pulmonary-complications>

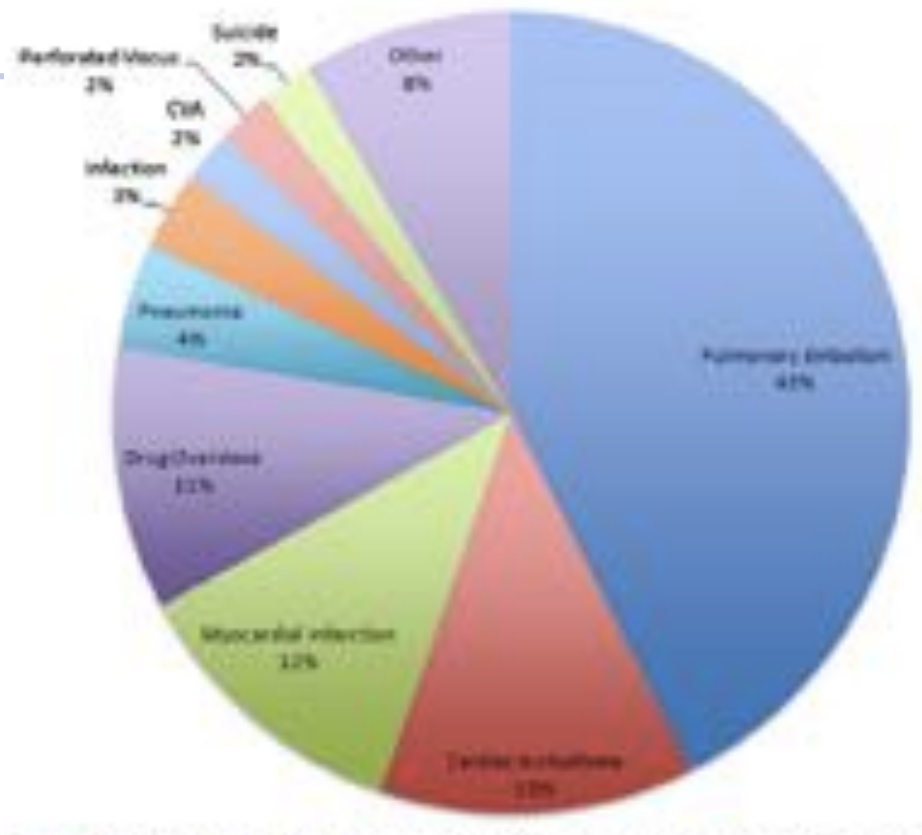
-
- Very few studies in OBA attempt to link patient selection with outcomes
 - There is more emphasis on outcomes and less on choosing your patients wisely...

Outpatient Surgery and Sequelae

An Analysis of the AAAASF Internet-based Quality Assurance and Peer Review Database

Ali M. Soltani, MD^a,
Clin Plastic Surg 40 (2013) 465–473

- Evaluates compliance with standards through monitoring outcomes in their facilities.
- **Study did not provide patient comorbidities or other demographics to guide patient selection....**
- **But we can examine types of complications to help improve OBS patient selection**



Outpatient Surgery and Sequelae

An Analysis of the AAAASF Internet-based Quality Assurance and Peer Review Database

Ali M. Soltani, MDⁱ
Clin Plastic Surg 40 (2013) 465–473

- No specific patient-related risk factors identified
- 94 deaths between 2001 and 2012.
- Mortality 0.0017% of all procedures; approx 1 in 41,726.
- PE: most common cause of death, with 40 cases of PE causing mortality.
- Of these 40 deaths, 26 were associated with abdominoplasty.
- Most fatal PEs, 20, were in cases where abdominoplasty was combined with other procedures.
- Other causes of mortality: cardiac arrhythmia, myocardial infarction, and drug overdose.

Obesity in the Office



- Rates continue to increase...
- Associated with:
 - Pulmonary Hypertension
 - Cardiovascular Disease
 - Diabetes
 - Sleep Apnea
 - Metabolic Syndrome
 - Technical Difficulties

Selection of Obese Patients Undergoing Ambulatory Surgery: A Systematic Review of the Literature

Joshi GP et al. Anesth Analg 2013;117(5):1082-91

“Since invasiveness of surgery, surgeon’s experience, anesthesia technique can influence perioperative outcome, BMI alone should not be the only determinant of patient selection for ambulatory surgery.”

BMI >50 kg/m² may be at a higher risk of perioperative complications, and this patient population should be “chosen carefully” for ambulatory surgery = not a good idea?

BMI ≤40 kg/m², appears safe assuming comorbid conditions are well controlled

BMIs 40-50 kg/m² with comorbid conditions:

(e.g., obesity-related hypoventilation syndrome, OSA, pHTN, resistant HTN, significant CAD, and resistant HF)

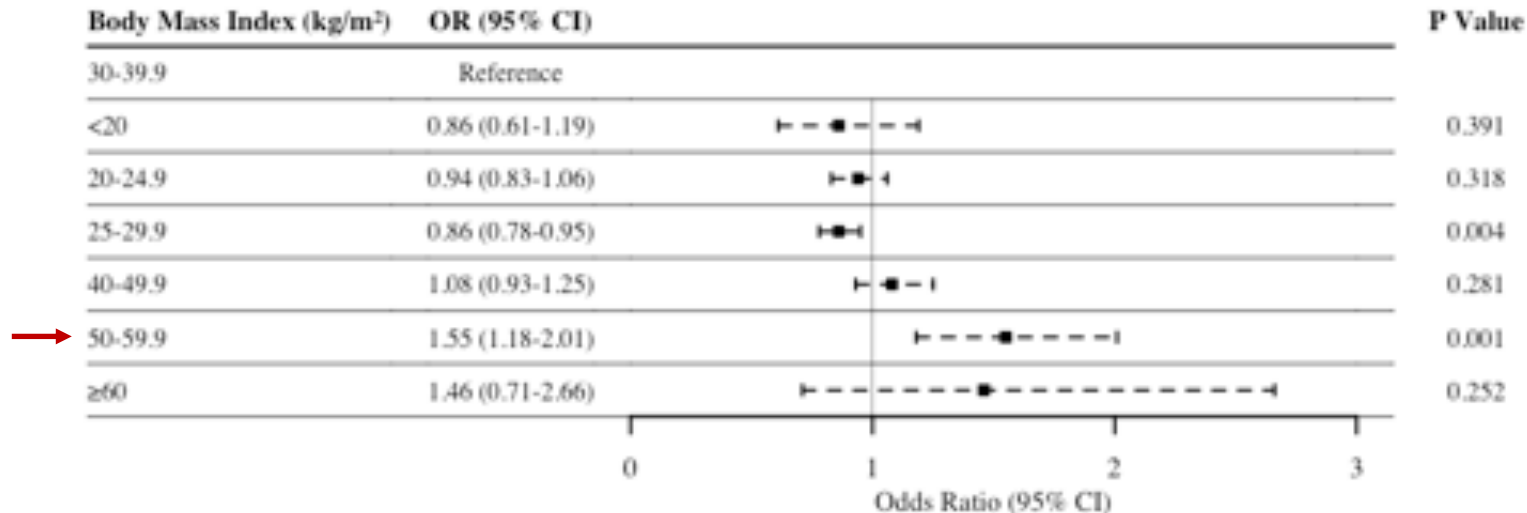
Patients with these comorbidities **may not be suitable for ambulatory surgery.**

The Association of Body Mass Index and Same-Day Hospital Admission, Postoperative Complications, and 30-day Readmission Following Day-Case Eligible Joint Arthroscopy: A National Registry Analysis

J. Clin Anesth 2019

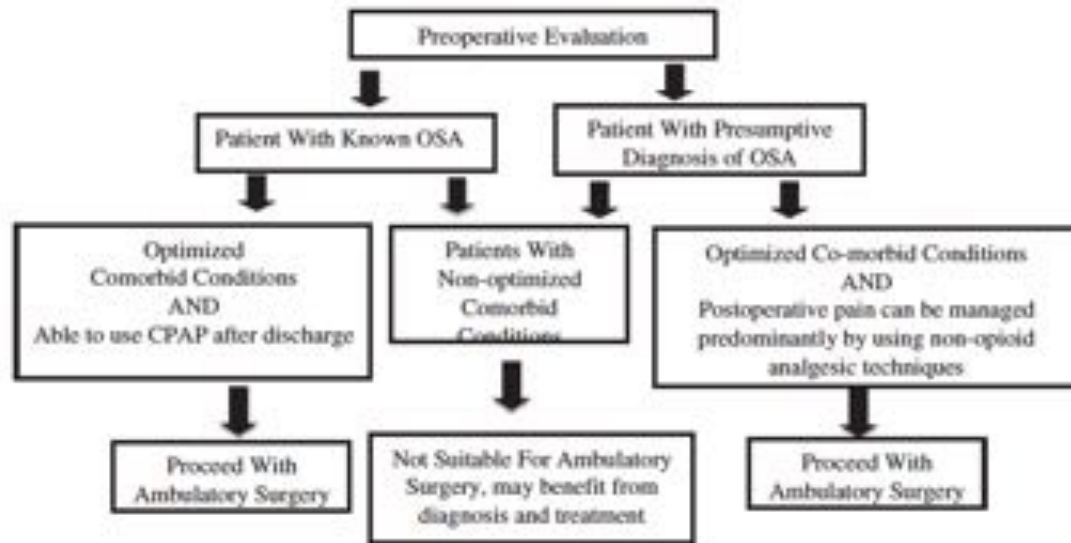
Rodney Gabriel, Brittany Burton, Jerry Ingrande, Girish Joshi, ruth waterman, Kristin Spurr, Richard Urman

Unanticipated Admission



Society for Ambulatory Anesthesia Consensus Statement on Preoperative Selection of Adult Patients with Obstructive Sleep Apnea Scheduled for Ambulatory Surgery

Joshi GP et al: Anesth Analg
2012;115:1060-8.



Comorbid conditions: HTN, arrhythmias, HF, Cerebrovascular dz, metabolic syndrome

Malignant Hyperthermia-Susceptible Adult Patient and Ambulatory Surgery Center: Society for Ambulatory Anesthesia (SAMBA) and Ambulatory Surgical Care Committee of the American Society of Anesthesiologists (ASA) Position Statement

Urman RD, Rajan N, Belani K, Gayer S, Joshi GP. *Anesth Analg* 2019;129(2):347-349

For ASCs, not Office-based facilities:

- Adult MH-susceptible patients can safely undergo a procedure in ASC
 - assuming proper precautions for preventing, identifying, and managing MH.
- Preoperative prophylaxis with dantrolene is not indicated in MH-susceptible patients scheduled for elective surgery.
- No evidence to recommend an extended stay in the ASC
- Patient may be discharged when the usual discharge criteria for outpatient surgery are met.
- Requires early recognition, prompt treatment, and timely transfer to a center with critical care capabilities.

Society for Ambulatory Anesthesia Consensus Statement on Perioperative Blood Glucose Management in Diabetic Patients Undergoing Ambulatory Surgery



Joshi GP Anesth Analg

2010;111(6):1378-87

- “Insufficient data” to recommend level of preop fasting blood glucose or HbA1c levels above which elective ambulatory surgery should be postponed.
- No RCTs evaluating the effects of preoperative glycemic control on postop infection in ambulatory surgical procedures.
- Is there a glucose level too high for elective ambulatory surgery?
 - Yes, if associated with ketoacidosis
 - OK to proceed if usually well-controlled
 - If poorly controlled, other issues may cx surgery
- What is optimal blood glucose level?
 - Goal should be under 180 mg/dl
 - Do NOT normalize someone that is chronically elevated

Perioperative Quality Initiative consensus statement
on preoperative blood pressure, risk and outcomes
for elective surgery

HYPERTENSION: HOW HIGH IS TOO HIGH



Consensus recommendations:

1. preop BP may be used to define targets for periop management
2. elective surgery should NOT be cancelled based solely upon preop BP
3. there is insufficient evidence to support lowering arterial pressure in the immediate preoperative period to minimize risk;
4. insufficient evidence that any one measure of arterial pressure (systolic, diastolic, mean, or pulse) is better than any other for risk prediction of adverse perioperative events.

Ways To Improve Your Patient Selection Process

1. **Communication** (effective communication between the anesthesia provider and surgeon)
2. **Set exclusion criteria** (this may vary based on the office type)
3. **Develop red flags**
4. All patients should fill out a **preliminary anesthesia questionnaire**, no exceptions
5. Questionnaires should be reviewed by the anesthesia provider
6. Telephone interviews
7. Consult the recommendations made by the different professional medical societies
8. Education and **Benchmarking**

THANK YOU !

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Thank you for your attendance at SAMBA's October Webinar!



ASCA
Ambulatory Surgery
Center Association

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