

AMBULATORY CATARACT SURGERY

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Objectives

- ✓ The participants will understand which medical conditions preclude cataract surgery
- ✓ The audience will know which preoperative tests are needed for patients planning cataract surgery
- ✓ The listeners will know how to manage newly discovered atrial fibrillation

Disclosures

I receive payments from the International Anesthesia Research Society for editorial work for A&A Practice

COST OF CATARACTS

Visual impairment

- ✓ Impacts quality of life
- ✓ Associated with:
 - ✓ Cognitive impairment
 - ✓ Higher mortality
- ✓ Increases:
 - ✓ Falls
 - ✓ Hip fractures
 - ✓ Car accidents
 - ✓ Healthcare utilization
 - ✓ Social isolation
 - ✓ Dependency
 - ✓ Nursing home placements
- ✓ Waiting >4 months to perform surgery increases complications



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DON'T BE A BARRIER TO CATARACT SURGERY!

- ✓ Cataract surgeries among most common procedures with anesthesia
- ✓ Cataracts are common causes of blindness
- ✓ Surgery is only effective treatment of cataracts
- ✓ Patients are often elderly with comorbidities
- ✓ Most cataracts: topical or regional anesthesia with minimum or no sedation
- ✓ Minimal risk of adverse outcomes
- ✓ General consensus that cataract surgery is extremely low risk
- ✓ The benefits of sight restoration and preservation are enormous



Figure 2. Prevalence of Anesthesia Care for Selected Low-risk Procedures in the 2017 Medicare 5% Sample

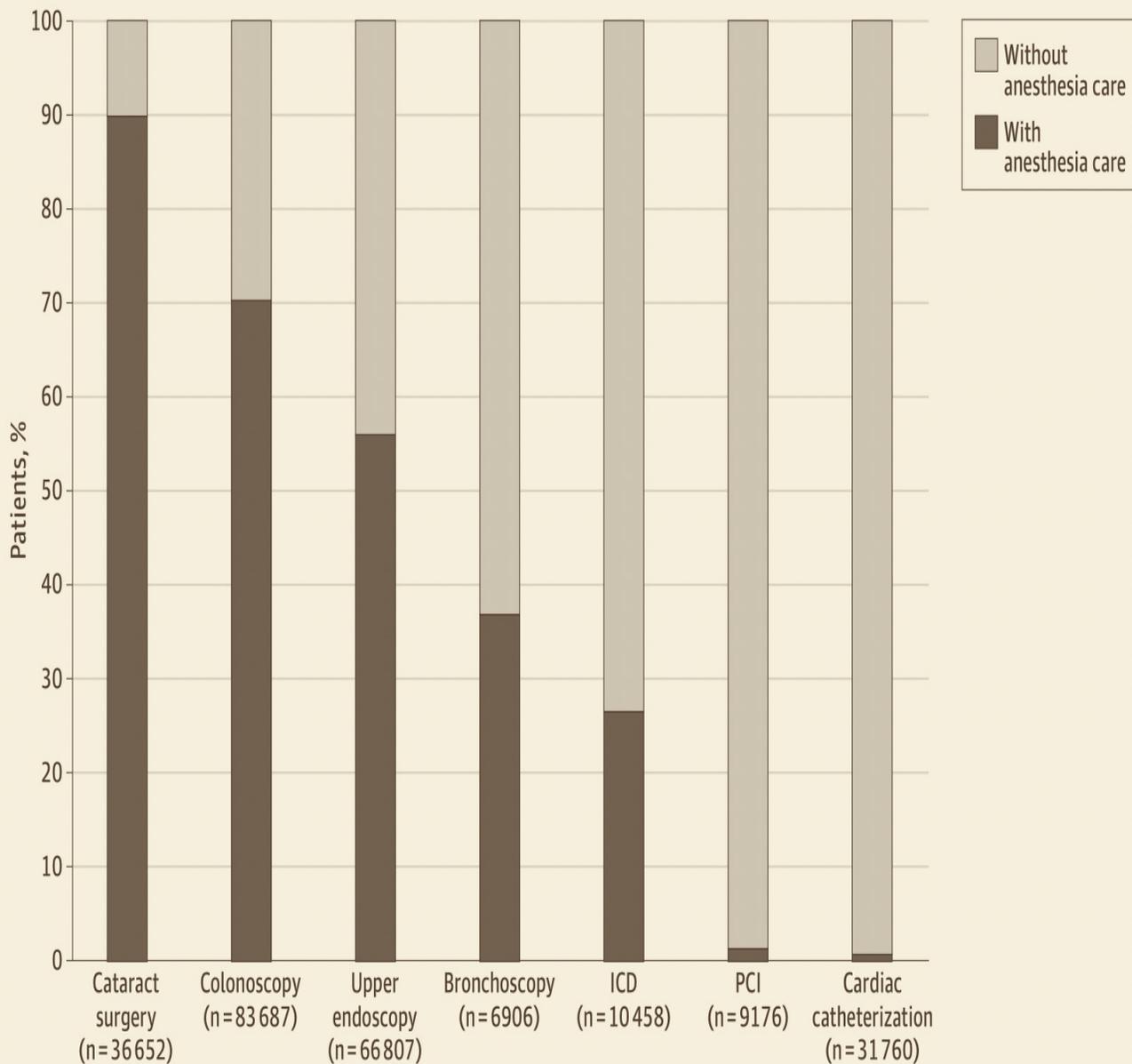
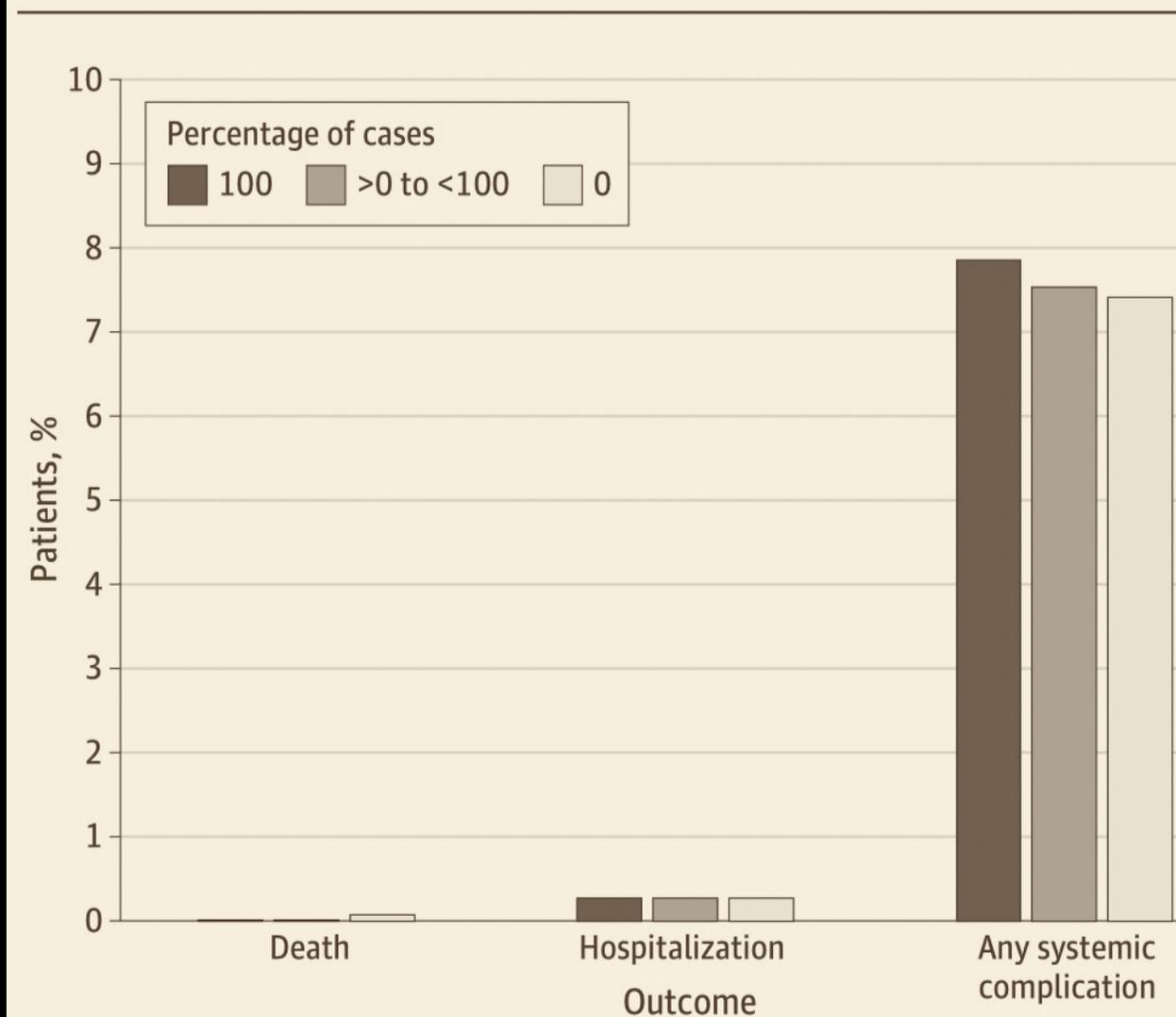
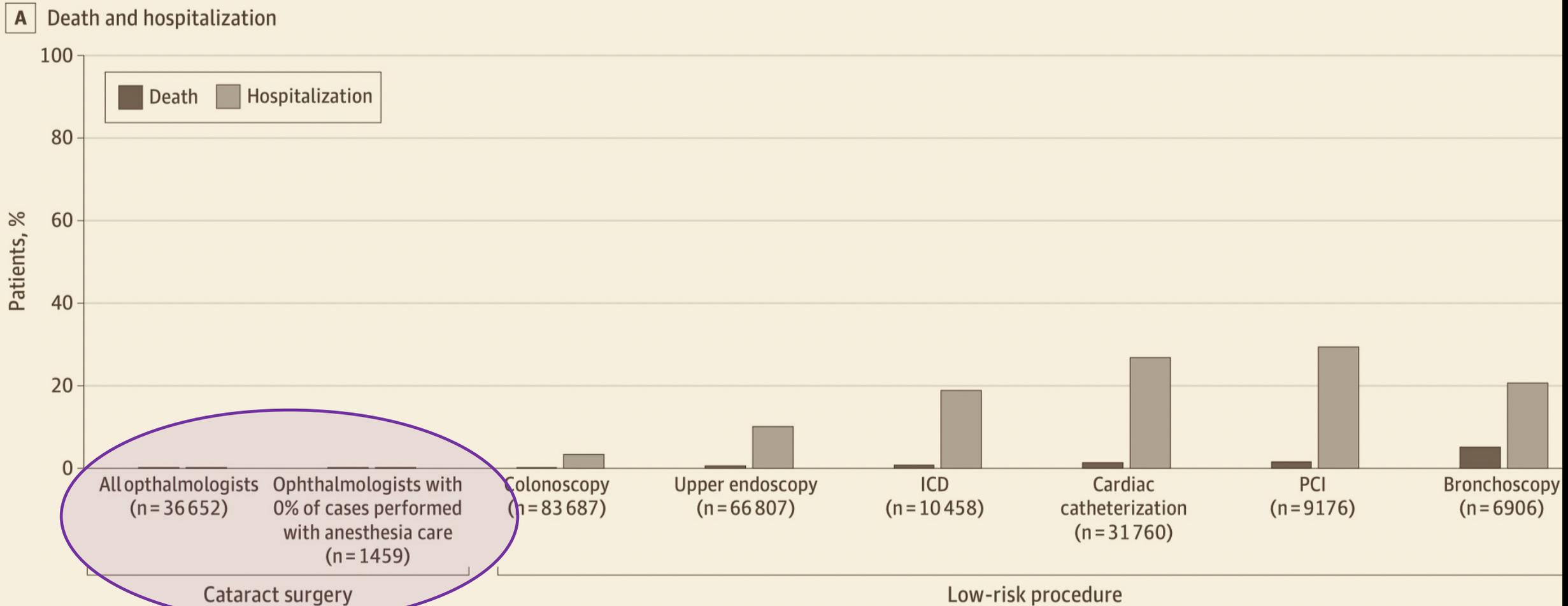


Figure 1. Death, Hospitalization, and Systemic Complications Within 7 Days After Cataract Surgery Stratified by the Proportion of Each Ophthalmologist's Cataract Surgery Cases Performed With Anesthesia Care



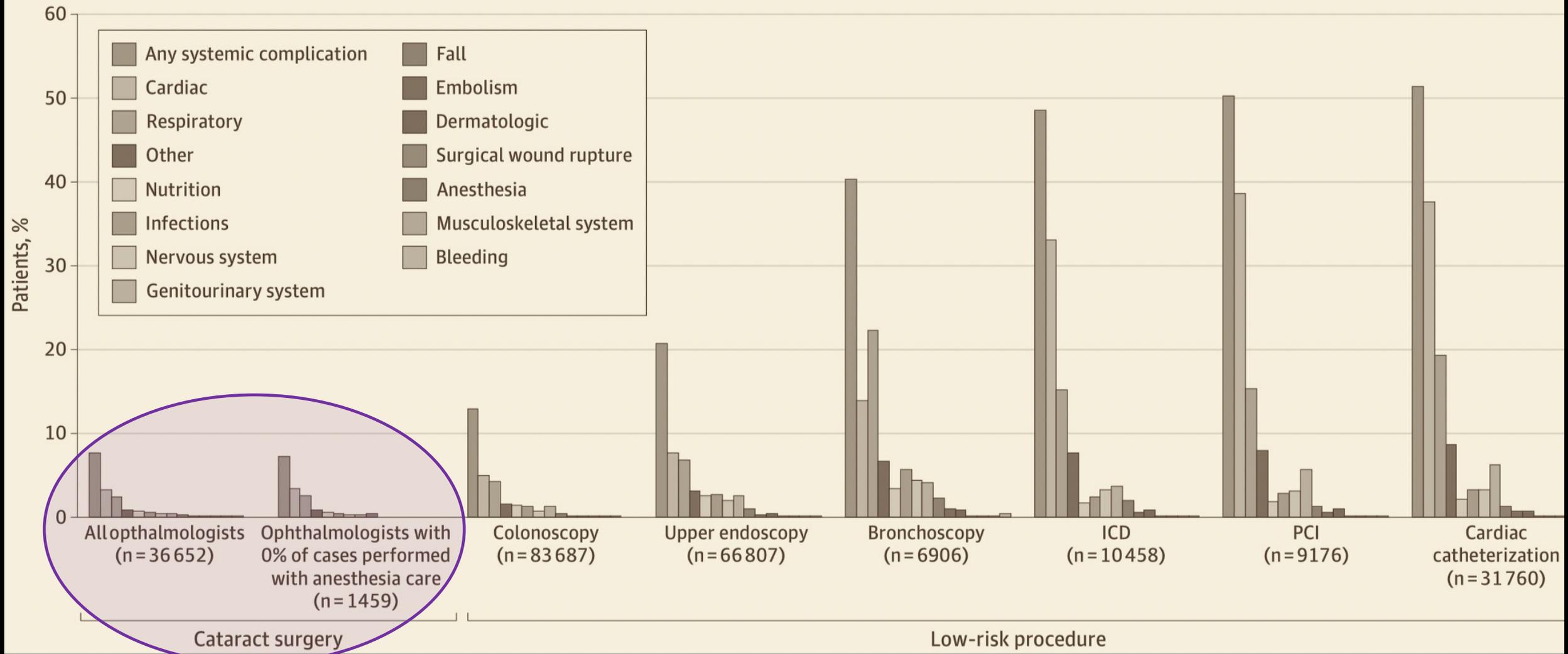
DEATH & HOSPITALIZATION: CATARACT VS OTHER PROCEDURES ⁶

Figure 3. Death, Hospitalization, and Systemic Complications Within 7 Days After Each Low-risk Procedure Compared With Cataract Surgery



COMPLICATIONS: CATARACT VS OTHER MINOR PROCEDURES

B Systemic complications



Preoperative Evaluation Can Delay Ophthalmologic Surgery Without Improving Outcomes

- ✓ Benefits of sight restoration are enormous
- ✓ Cataract surgery extremely low risk
- ✓ No greater risk than "getting a haircut"



“IF A PATIENT CAN LIE IN A POSITION THAT ALLOWS THE PROCEDURE THERE ARE FEW CONDITIONS OR TEST RESULTS THAT PRECLUDE CATARACT SURGERY”

Preoperative Care for Cataract Surgery: The Society for Ambulatory Anesthesia Position Statement

BobbieJean Sweitzer, MD, FACP, SAMBA-F, FASA,* Niraja Rajan, MD,† Dawn Schell, MD,‡
Steven Gayer, MD, MBA,§ Stan Eckert, MD,|| and Girish P. Joshi, MBBS, MD, FFARCSI¶

Cataract surgeries are among the most common procedures requiring anesthesia care. Cataracts are a common cause of blindness. Surgery remains the only effective treatment of cataracts. Patients are often elderly with comorbidities. Most cataracts can be treated using topical or regional anesthesia with minimum or no sedation. There is minimal risk of adverse outcomes. There is general consensus that cataract surgery is extremely low risk, and the benefits of sight restoration and preservation are enormous. We present the Society for Ambulatory Anesthesia (SAMBA) position statement for preoperative care for cataract surgery. (Anesth Analg 2021;133:1431–6)

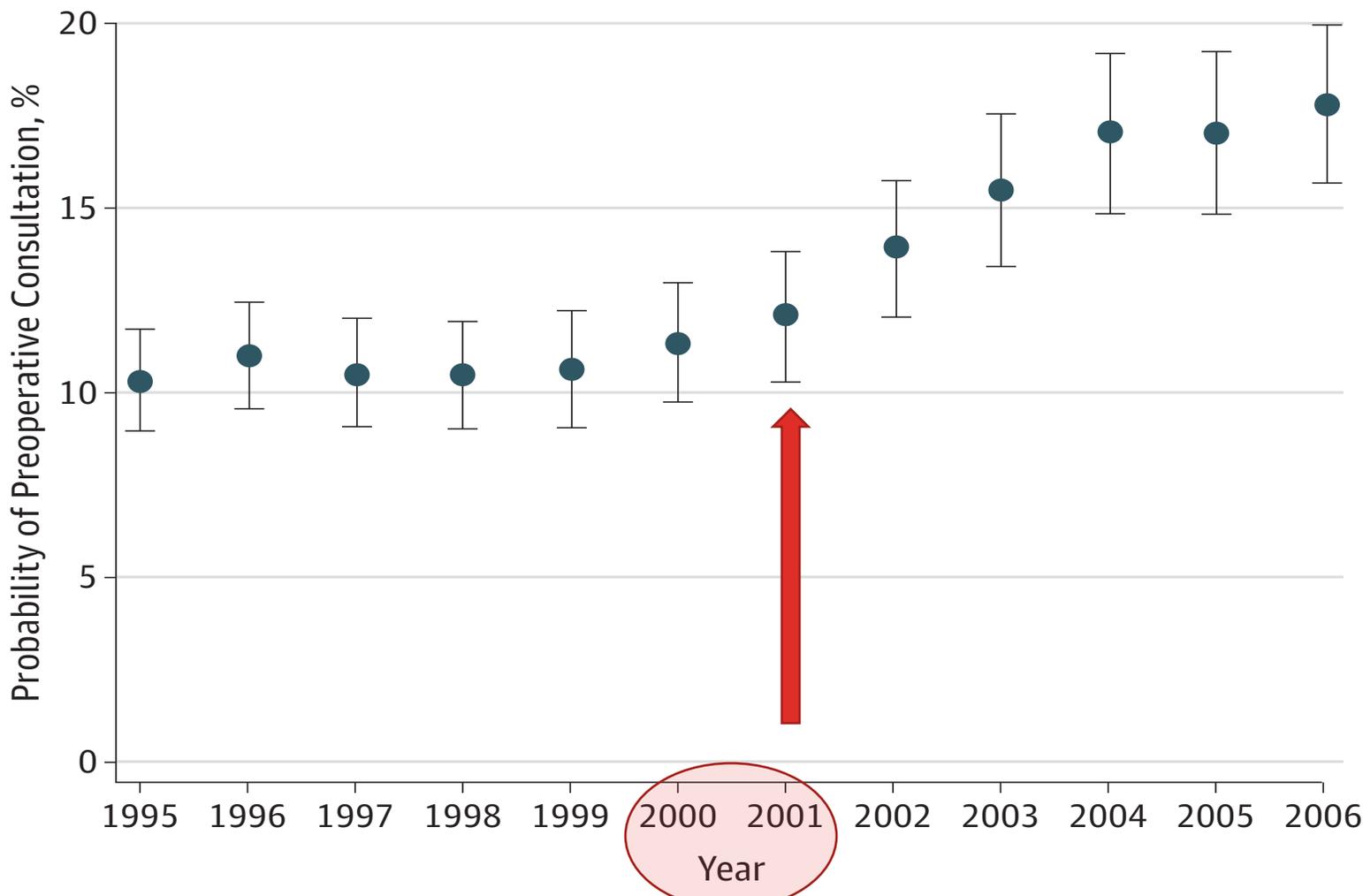
VAST majority of cataract surgery in free-standing ambulatory centers

DOES PREOPERATIVE TESTING OFFER BENEFITS TO PATIENTS BEFORE CATARACT SURGERY?

- ✓ CMS dropped requirement for H&P before outpatient surgery
- ✓ No benefit of routine testing before cataract surgery
- ✓ Tests are indicated **ONLY** for severe medical problems that warrant evaluation even without surgery
- ✓ The 2014 ACC/AHA guideline on perioperative cardiac evaluation specifically states: “*cardiac risk assessment should not be done before very low risk surgeries such as cataract surgery”*”
- ✓ **SAMBA recommends**: No testing before cataract surgery

BARRIERS & WASTE FOR CATARACT SURGERY

Figure 1. Adjusted Probability of Preoperative Consultation by Calendar Year



In 2000:

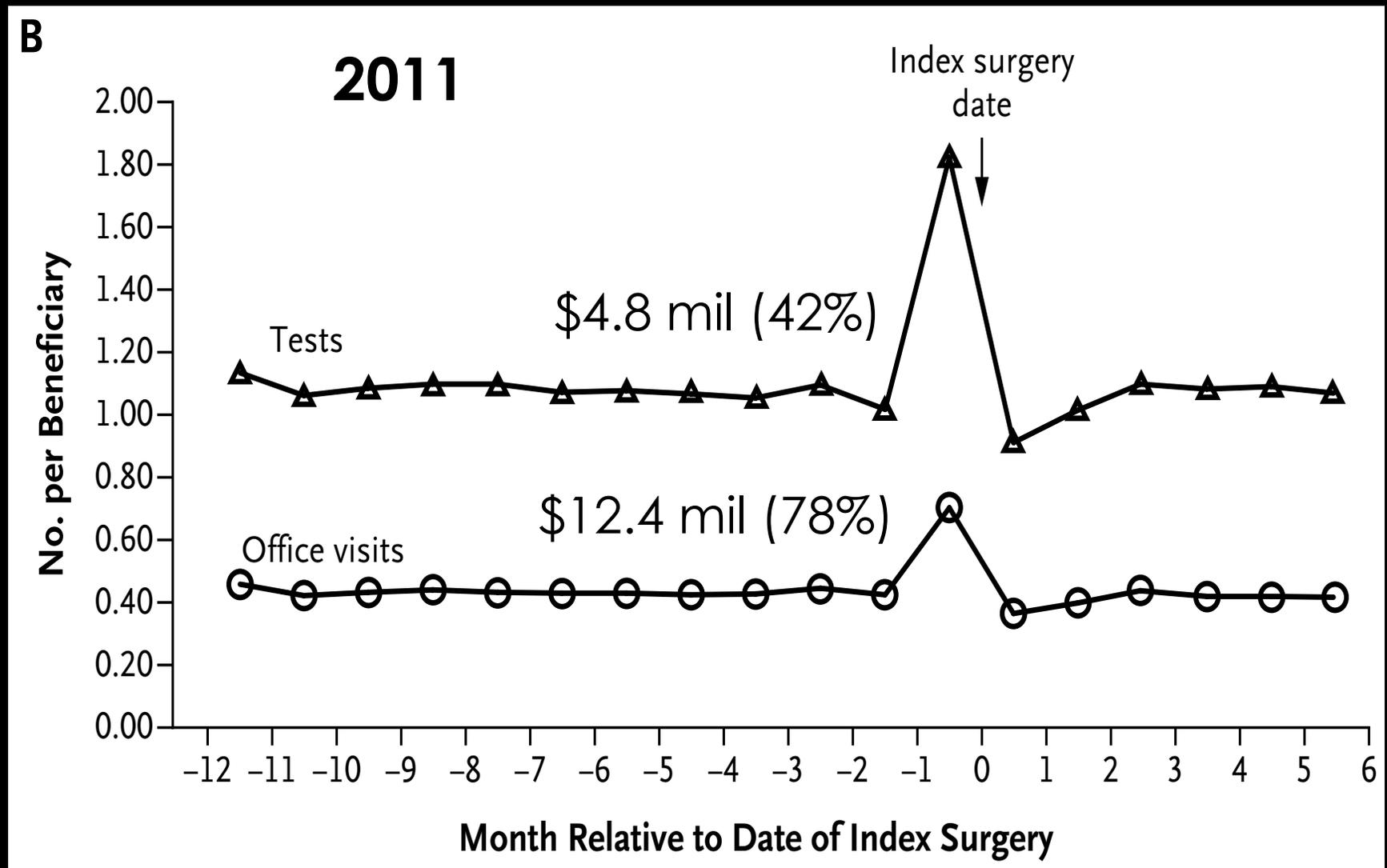
- ✓ 19,000 cataract surgeries at 9 centers
- ✓ “no routine testing group” vs “routine testing group”
- ✓ ECG, CBC, electrolytes, glucose, BUN, creatinine)
- ✓ Conclusions: Routine tests before cataract surgery do not increase safety

N Engl J Med 2000;342:168-
JAMA Intern Med 2014;174:380-
N Engl J Med 2015;372:1530-
JAMA Intern Med 2022;doi:10.1001/

THE VALUE OF ROUTINE PREOPERATIVE MEDICAL TESTING BEFORE CATARACT SURGERY

2015 & 2022:

- ✓ Testing and MD visits before cataract surgery are common
- ✓ Strongly associated w/provider practice patterns
- ✓ But not patient needs



N Engl J Med 2000;342:168-
N Engl J Med 2015;372:1530-

WHICH COMORBIDITIES WARRANT DELAY OF CATARACT SURGERY?

- ✓ MI (uncomplicated) ≤ 30 days; complicated MI ≤ 60 days
- ✓ PCI without stenting ≤ 14 days or with stents ≤ 30 days
- ✓ Arrhythmias with hemodynamic compromise (VT, AF with RVR)
- ✓ Decompensated heart failure
- ✓ Acute serious pulmonary conditions (Pneumonia, URI with active symptoms, PE < 3 months)
- ✓ Recent severe neurologic conditions (altered mental status, stroke or TIA < 3 months, uncontrolled epilepsy, increased ICP)
- ✓ Malignant HTN (acute end-organ damage, typically kidneys, brain or heart)
- ✓ DKA or hyperosmolar hyperglycemic nonketotic syndrome

CAN PATIENTS WITH CORONARY STENTS HAVE CATARACT SURGERY REGARDLESS OF TIMING OF STENTS?

- ✓ The ACC/AHA recommend that elective surgery be postponed for 30 days after BMS implantation and 6 months after DES implantation
- ✓ Many argue this does not apply to cataract surgery if DAPT are continued
- ✓ Cataract surgery elicits a minimal local inflammatory response
- ✓ ***SAMBA recommends: Patients with coronary stents delay cataract surgery 30 days after PCI. DAPT should not be interrupted***

DOES NEW ONSET DOS ATRIAL FIBRILLATION WARRANT CANCELLATION OF CATARACT SURGERY?

However, for these patients presenting for **minor** surgical procedures, typically of limited duration and complexity (eg, monitored anesthesia care using local anesthetics with minimal anticipated blood loss), it may be reasonable to safely proceed despite new onset AF, as long as the patient is asymptomatic and hemodynamically stable.

These patients should subsequently be referred for early evaluation and management of AF. (See ["New onset atrial fibrillation"](#).)



- ✓ Patients should receive early evaluation & management of AF postoperatively
- ✓ **SAMBA recommends:** *Cataract surgery should not be delayed for newly discovered atrial fibrillation if asymptomatic with stable hemodynamics*

DOES HYPERTENSION WARRANT CANCELLATION OF CATARACT SURGERY?

- ✓ HTN among most common reasons for cataract surgery to be postponed
- ✓ There is little evidence that HTN increases adverse events in patients having cataract surgery
- ✓ **Don't ask; don't tell; don't measure (my advice; not SAMBA's)**
 - ✓ Do not measure BP unless you think its too low
- ✓ **SAMBA recommends: *Cataract surgery be delayed only for patients with malignant hypertension defined as elevated blood pressures with acute end-organ damage***

DOES HYPERGLYCEMIA WARRANT CANCELLATION OF CATARACT SURGERY?

- ✓ No evidence to support delaying cataract surgery for any specific blood glucose or hemoglobin A1c
- ✓ **Don't ask; don't tell; don't measure (my advice; not SAMBA's)**
- ✓ Do not measure BS unless you think its too loW
- ✓ **SAMBA recommends: only delaying cataract surgery in patients with evidence of ketoacidosis or hyperosmolar hyperglycemic nonketotic syndrome or significant hypoglycemia**

CAN AN ASA-PS 4 PATIENT SAFELY UNDERGO CATARACT SURGERY?

- ✓ While adverse events are higher in patients with medical comorbidities, cataract surgery is an extremely low risk and highly beneficial procedure
- ✓ **SAMBA recommends:** *ASA-PS 4 patients with stable co-morbidities who can tolerate cataract surgery with topical or regional anesthesia and no or minimal sedation can safely undergo cataract surgery*

DOES GENERAL ANESTHESIA COMPARED TO TOPICAL WITH OR WITHOUT SEDATION ALTER THE RISKS OF CATARACT SURGERY?

- ✓ No robust studies compare risk of cataract surgery with GA to no GA
- ✓ Older studies assessing stress response of GA do not compare to current techniques such as use of supraglottic devices, spontaneous breathing, opioid-sparing, minimal depth of anesthesia and topical anesthesia
- ✓ Risks of **most procedures** do not differ based on type of anesthesia
- ✓ It is unlikely that there is a substantial difference in risk when general anesthesia is provided for cataract surgery

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20

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Can patient get to the facility and lie flat for 30-45 min?

“If a patient can lie in a position that allows the procedure there are few conditions or test results that preclude cataract surgery”