

Ambulatory Surgery Centers: Appropriate Patients and Procedures

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Mortality vs ASA classification and procedure risk

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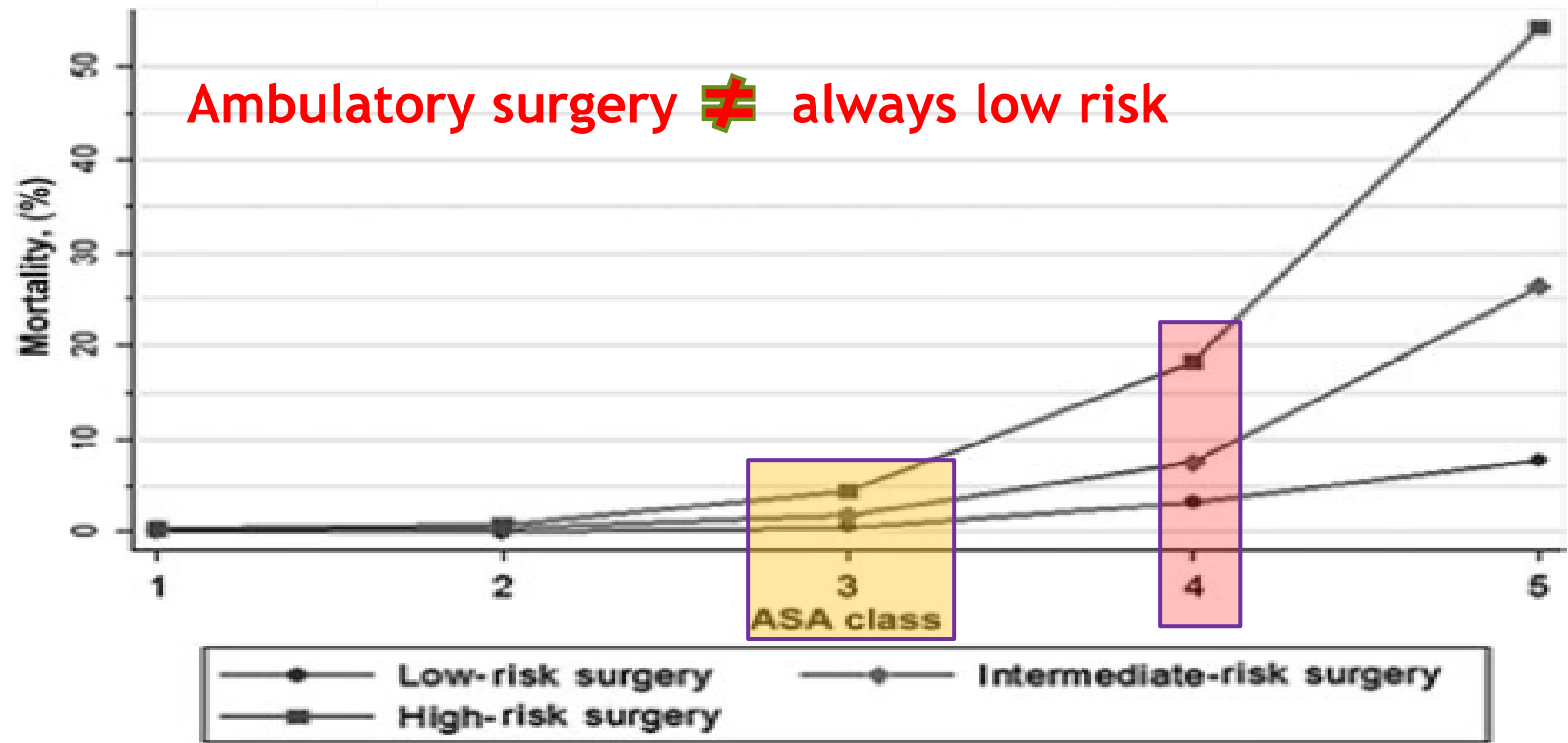


FIGURE 1. The observed mortality rate as a function of American Society of Anesthesiologists' physical status and surgery-specific risk.

Frail Patients and Postoperative Complications

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- ✓ >140,000 frail patients for ambulatory surgery (hernia, thyroid, parathyroid, breast)
- ✓ Increasing frailty associated with increased complications
- ✓ Pulmonary complications most common adverse events
- ✓ Local anesthesia & MAC decreased serious 30-day complications

CONCLUSIONS AND RELEVANCE Frailty is associated with increased perioperative morbidity in common ambulatory general surgery operations, independent of age, type of anesthesia, and other comorbidities. Surgeons should consider frailty rather than chronological age when counseling and selecting patients for elective ambulatory surgery. JAMA Surg 2018;153:160-

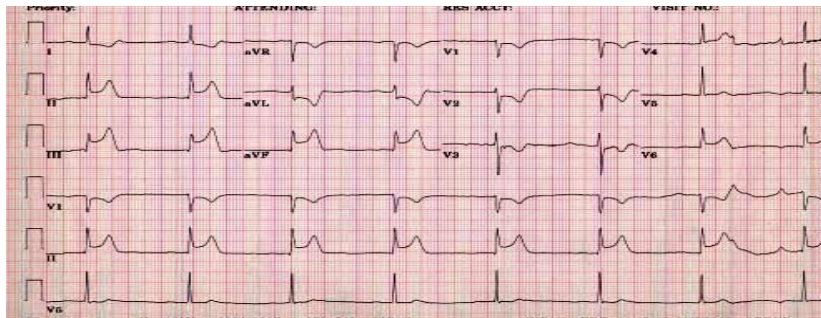
2014 ACC/AHA Guideline on Perioperative Cardiovascular Evaluation and Management of Patients Undergoing Noncardiac Surgery

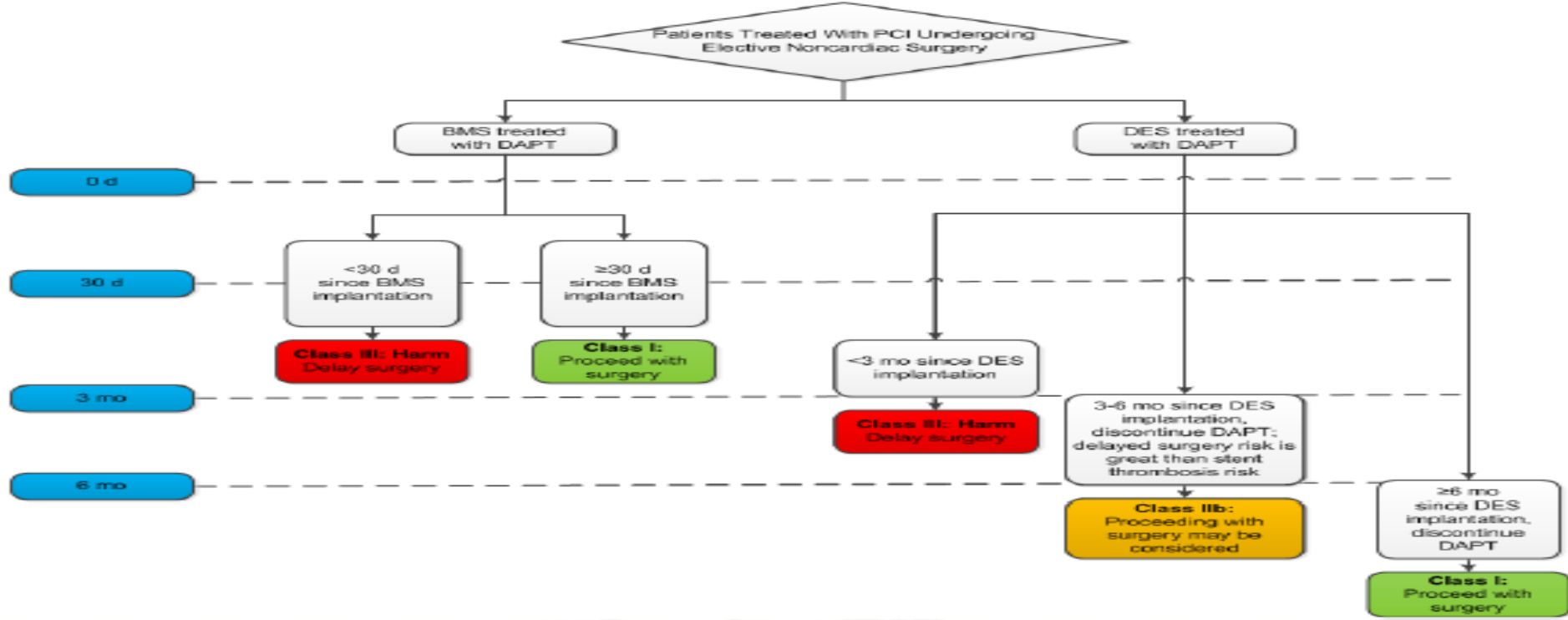
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≥ 60 days should elapse after a MI before noncardiac surgery

Postoperative myocardial infarction rates

- 0-30 days from MI to OR: 33%
- 31-60 days from MI to OR: 19%
- 61-90 days from MI to OR: 8.5%





Moreover, the highest-risk period for stent thrombosis is immediately after surgery, not before.⁶¹ Given these risks, noncardiac surgery should be performed at centers with primary PCI capacity to enable rapid treatment if stent thrombosis occurs.

Heart Failure

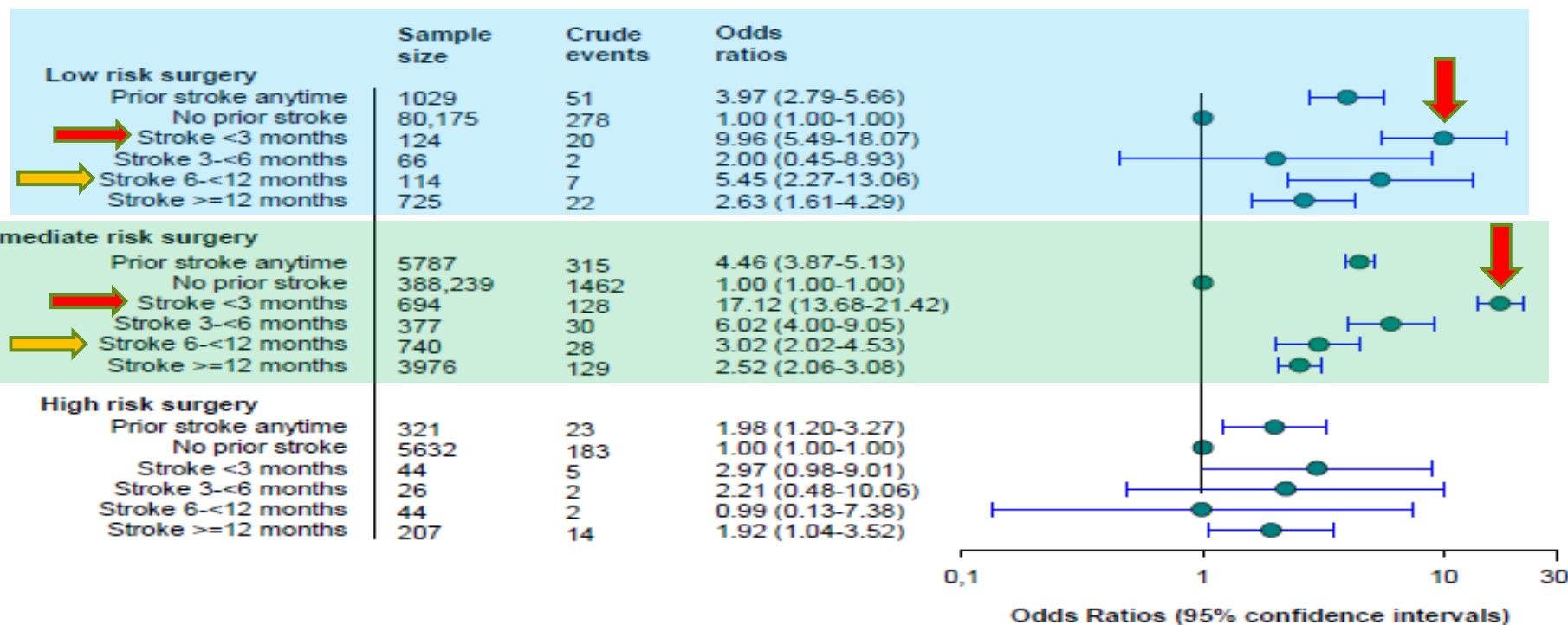
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- ✓ 19 353 HF patients having ambulatory surgery in VASQIP
- ✓ **Mortality risk with HF, 2%** vs 0.39% without HF
 - ✓ **Adjusted odds ratio [aOR], 1.95**
- ✓ Mortality increased with decreasing systolic function
- ✓ Symptomatic HF had greatest risk of **mortality: 3.57%; OR, 2.76**
- ✓ Asymptomatic HF **mortality risk: 1.85%; OR, 1.85**
- ✓ HF patients had higher **30-day postoperative complications**
 - ✓ **5.65%** vs 2.65%; aOR, 1.10

Time Elapsed After Ischemic Stroke and Risk of Adverse Cardiovascular Events and Mortality Following Elective Noncardiac Surgery

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eFigure 2. Risk of 30-day MACE Stratified by Surgery Risk^a for the Full Study Population



MACE, major adverse cardiovascular events (acute myocardial infarction, ischemic stroke or cardiovascular death).

^aSurgery risk according to the Boersma-index.

What Procedures??



Mortality vs ASA classification and procedure risk

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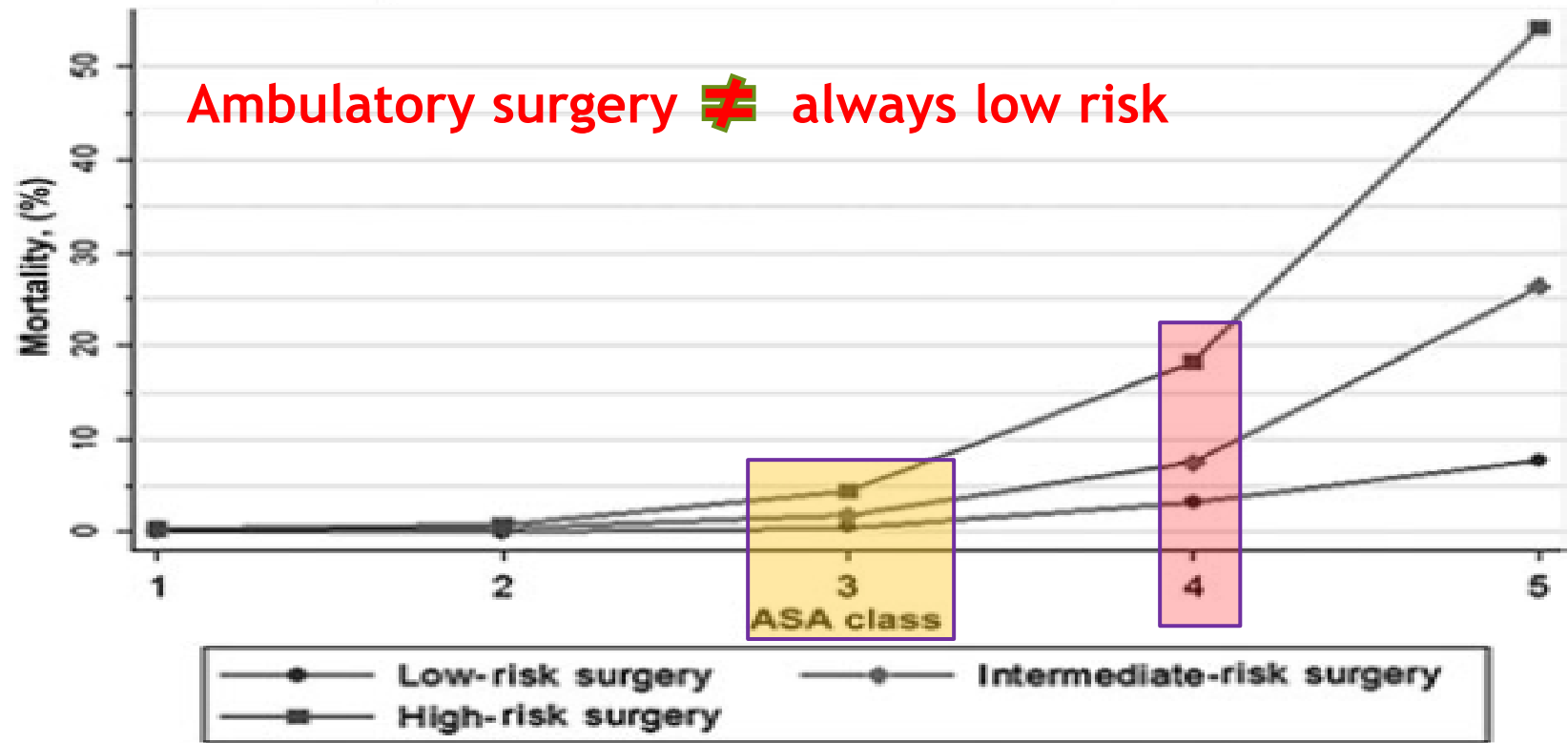


FIGURE 1. The observed mortality rate as a function of American Society of Anesthesiologists' physical status and surgery-specific risk.

Defining the Intrinsic Cardiac Risks of Operations to Improve Preoperative Cardiac Risk Assessments

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Jason B. Liu, M.D., M.S., Yaoming Liu, Ph.D., Mark E. Cohen, Ph.D.,
Clifford Y. Ko, M.D., M.S., M.S.H.S., F.A.C.S., Bobbie J. Sweitzer, M.D., F.A.C.P.

Table 2. Selected Examples of Low, Intermediate, and High Intrinsic Cardiac Risk Operations

Description	Odds Ratio* (95% CI)
Low intrinsic cardiac risk	
<u>Partial mastectomy (lumpectomy)</u>	0.22 (0.15–0.31)
Arthroscopic rotator cuff repair	0.32 (0.19–0.54)
<u>Simple mastectomy (complete breast)</u>	0.37 (0.26–0.50)
Laparoscopic appendectomy	0.45 (0.33–0.62)
Laparoscopic cholecystectomy	0.62 (0.53–0.72)
Intermediate intrinsic cardiac risk	
<u>Transurethral resection of bladder tumor, large</u>	0.85 (0.61–1.20)
Laparoscopic prostatectomy	0.88 (0.69–1.12)
Open appendectomy	0.95 (0.51–1.75)
<u>Total hip arthroplasty</u>	0.95 (0.83–1.08)
Laparoscopic radial hysterectomy with bilateral salpingo-oophorectomy	1.05 (0.57–1.94)
High intrinsic cardiac risk	
Laparoscopic total abdominal colectomy with ileostomy	1.50 (0.92–2.44)
Breast reconstruction with free flap	1.52 (0.81–2.86)
Open cholecystectomy	1.55 (1.25–1.92)
Open ventral hernia repair, incarcerated or strangulated, recurrent	1.78 (1.29–2.44)
Whipple procedure, pylorus-sparing	4.70 (4.00–5.53)

Are there other potential appropriate treatment options?

Please enter as much of the following information as you can.
A rough estimate will still be generated.

Age Group 65-74 years

Sex Female

Functional status Independent

Emergency case No

ASA class III - Severe system

Wound class Clean

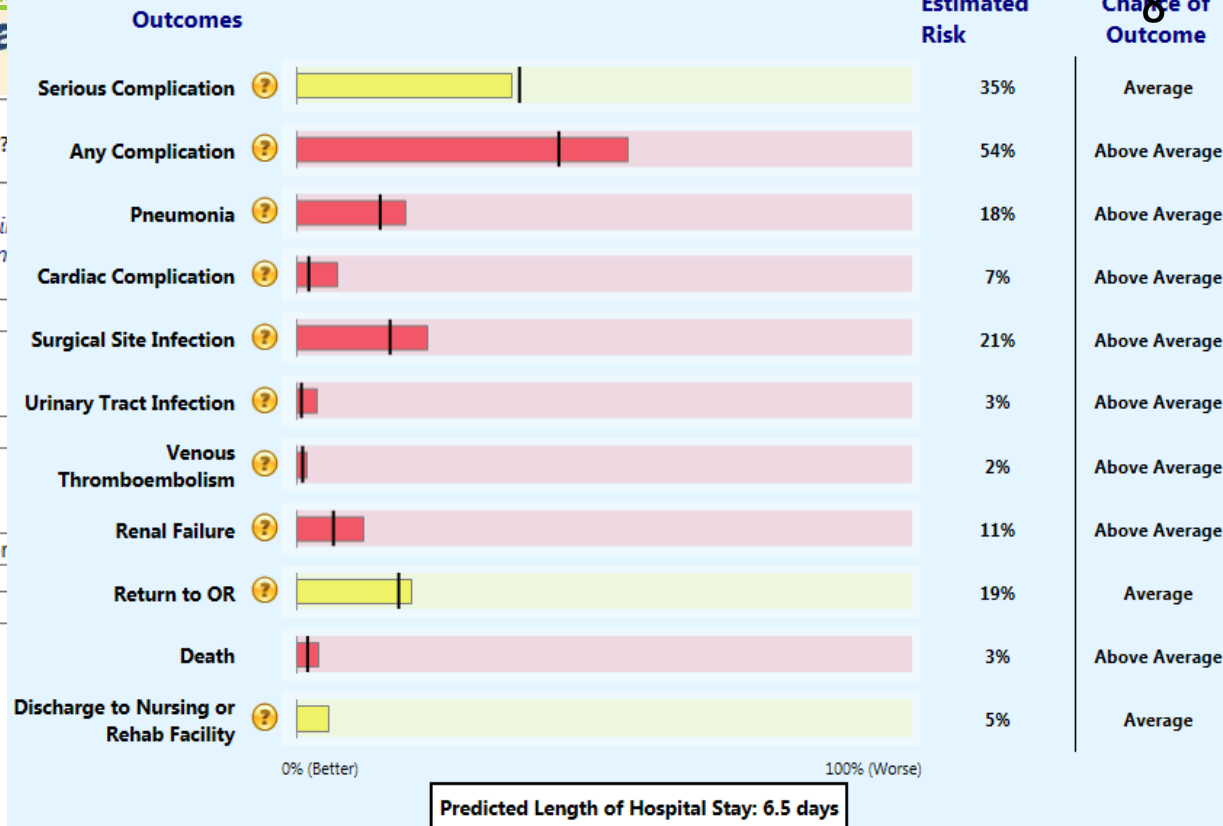
Steroid use for chronic condition No

Ascites within 30 days prior to surgery No

Systemic sepsis within 48 hours prior to surgery None

Ventilator dependent No

Disseminated cancer No



Appropriate Potential Non-operative Treatment Options Are Available and Should Be Discussed

BMI Calculation: Height (in) 65

Weight (lbs) 210

Table 3. Risk Factors for Hospitalization Within 7 Days of Outpatient Surgery Among Medicare Beneficiaries Undergoing 16 Procedures

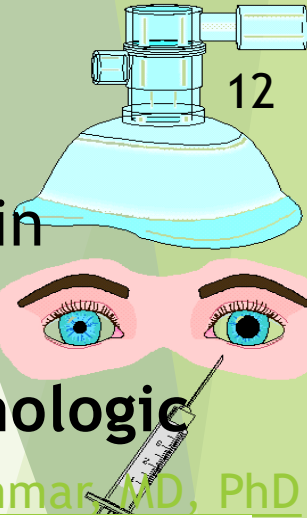
Risk of hospitalization within 7 days of outpatient surgery

Hospitalization Within 7 Days of Outpatient Surgery Among Medicare Beneficiaries Undergoing 16 Procedures
 ARCH SURG/VOL 139, JAN 2004 WWW.ARCHSURG.COM

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)

Cataract Surgery is LOW risk!!

- ✓ Mortality: 0.01%; Morbidity (major): 0.04%
- ✓ NO stress response or bleeding, minimal postop pain
- ✓ EVERYONE agrees: NO Preop TESTING!



Risk for Acute Myocardial Infarction After Ophthalmologic Procedures. [Abhijit Sen, PhD](#), [Katalin Gémes, PhD](#), [Gustav Stålhammar, MD, PhD](#)

Conclusion: Ophthalmologic procedures done in an out-patient setting did not seem to be associated with an increased risk for AMI.

Annals of Internal Medicine

EDITORIAL

Preoperative Evaluation Can Delay Ophthalmologic Surgery Without Improving Outcomes

“Sen, et al contribute further to what is almost irrefutable evidence of the safety of ophthalmologic procedures” (Sweitzer)

Ann Intern Med 2022;175:628-; Ann Intern Med 2022;175:747-

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

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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)

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

SUMMARY

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- ✓ Review patient information before the day of surgery
- ✓ Patients with major comorbidities should be evaluated by a facility-based anesthesiologist before surgery
- ✓ Prehabilitation, medical optimization, risk assessment, and shared-decision making are attainable goals

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