



**RITE-Size**

RIGHT-SIZING  
TESTING BEFORE  
ELECTIVE SURGERY

# Reducing Low-Value Preoperative Testing

# Welcome & Introductions



## **Lesly Dossett, MD, MPH**

Co-Director, Michigan Program on Value  
Enhancement (MProVE);  
Associate Professor of Surgery,  
Chief, Division of Surgical Oncology,  
Michigan Medicine



## **Hari Nathan, MD, PhD**

Director, Michigan Value Collaborative (MVC);  
Associate Professor of Surgery,  
Division of Surgical Oncology  
Michigan Medicine

# Disclosures

- ▶ Agency for Healthcare Research and Quality  
R01HS029306
- ▶ Dossett & Nathan (co-PI)
- ▶ “De-Implementation of Low-Value Testing in Patients Undergoing Low-risk Surgery

# Agenda

- ▶ What is RITE-Size?
- ▶ Why Preop Testing?
- ▶ Successes & Barriers
- ▶ Material Resources
- ▶ Next Steps
- ▶ Q&A





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**MSQC**  
MICHIGAN SURGICAL QUALITY  
COLLABORATIVE

**MVC**  
Michigan Value  
Collaborative

**MPI-VE**  
MICHIGAN PROGRAM ON  
VALUE ENHANCEMENT

# Preoperative Testing Collaboration



			
Expertise	<ul style="list-style-type: none"> <li>• Expertise in identifying areas of low-value care and understanding the reasons for persistent use</li> <li>• Expertise in designing behavioral interventions</li> </ul>	<ul style="list-style-type: none"> <li>• Engagement of statewide site champions in QI</li> <li>• Statewide claims data and quantitative expertise</li> <li>• Reporting structure</li> </ul>	<ul style="list-style-type: none"> <li>• Engagement of statewide clinical champions, hospitals, and key stakeholders to facilitate practice change</li> </ul>
Partnership Role	<ul style="list-style-type: none"> <li>• Lead design of intervention strategies</li> <li>• Support for measure development</li> </ul>	<ul style="list-style-type: none"> <li>• Lead measurement and reporting of testing rates</li> <li>• Integration with MVC P4P and QI infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Integration with MSQC P4P and QI infrastructure</li> <li>• Data abstraction</li> </ul>

# Why Preop Testing?

Making the case for de-implementation of preoperative testing before low-risk surgery



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# What Does Evidence Tell Us?

- Routine testing in asymptomatic patients does not avoid adverse events
- Tests are costly to the healthcare system
- Cascade events risk patient harm
- Multiple medical societies (e.g., ASA, ACS, AAO, ACP, etc.) recommend against this practice

JAMA Internal Medicine | Original Investigation | LESS IS MORE

## Prevalence and Cost of Care Cascades After Low-Value Preoperative Electrocardiogram for Cataract Surgery in Fee-for-Service Medicare Beneficiaries

Ishani Ganguli, MD, MPH; Claire Lupo, BBA; Alexander J. Mahor, JD, MPH; Stephanie Raymond, BA; Qianfei Wang, MS; E. John Orav, PhD; Chlang-Hua Chang, PhD; Nancy E. Morden, MD, MPH; Meredith B. Rosenthal, PhD; Carrie H. Colla, PhD; Thomas D. Sequist, MD, MPH

British Journal of Anaesthesia 110 (6): 926–39 (2013)  
Advance Access publication 11 April 2013 · doi:10.1093/bja/aet071

BJA

## Effectiveness of non-cardiac preoperative testing in non-cardiac elective surgery: a systematic review

T. Johansson<sup>1\*</sup>, G. Fritsch<sup>2†</sup>, M. Flamm<sup>1,3</sup>, B. Hansbauer<sup>1</sup>, N. Bachofner<sup>1</sup>, E. Mann<sup>1</sup>, M. Bock<sup>2,4</sup> and A. C. Sönnichsen<sup>1,5</sup>

Health Services Research

## Utilization of Preoperative Laboratory Testing for Low-risk, Ambulatory Urologic Procedures



Wilson Sul, Marissa C. Theofanides, Justin T. Matulay, Maxwell B. James, Ifeanyi C. Onyeji, Arindam RoyChoudhury, and Matthew Rutman

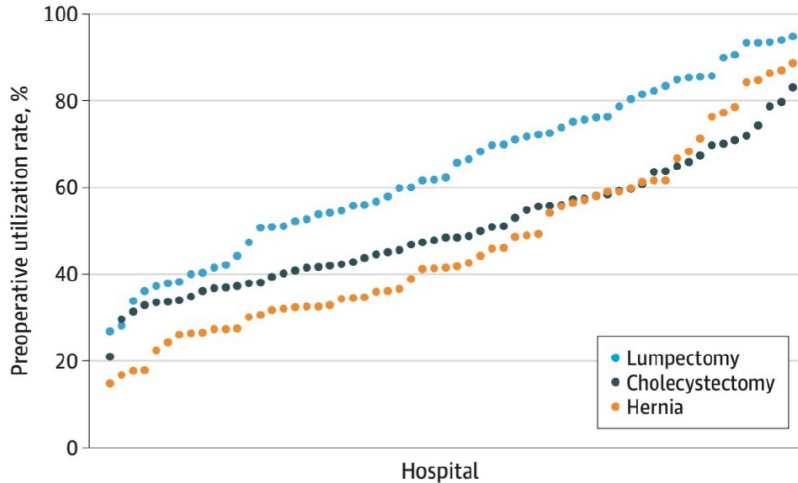
## Evaluating Compliance with Institutional Preoperative Testing Guidelines for Minimal-Risk Patients Undergoing Elective Surgery

Arunotai Siriussawakul,<sup>1</sup> Akarin Nimmannit,<sup>2</sup> Sirirat Rattana-arpa,<sup>1</sup> Siritda Chatrattanakulchai,<sup>1</sup> Puttachard Saengtawan,<sup>1</sup> and Aungsumat Wangdee<sup>1</sup>

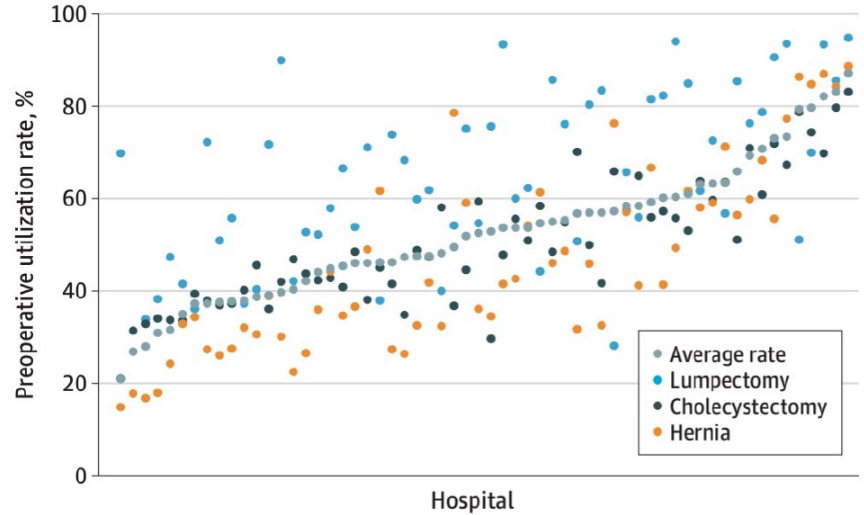


# Rates Vary *Between* and *Within* Hospitals

**A** Rates of any preoperative testing for each procedure



**B** Average rates of any preoperative testing



Identifying areas of opportunity  
using unblinded data with new MVC  
preoperative testing cohort definitions



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# Successes & Barriers

Strategic approaches to de-implementation of low-value testing and common points of resistance



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// “We all know complications can occur regardless of the preop evaluation, it’s better to be safe and just have everyone go through it [preoperative testing].”








**“**“I think one of the big barriers [to de-implementation] would just be making sure that everybody knows that that's the policy.”



# Common Barriers Observed

- ▶ Concerns for safety
- ▶ Testing culture / Current policies
- ▶ Provider habits and workflows
- ▶ Conflicting EMR processes
- ▶ Communication breakdowns between providers
  - ▶ Testing triad: Anesthesiologist, Surgeon, PCP

# MM Pilot Interventions

BARRIERS	INTERVENTION STRATEGIES				
	Consensus guidelines 	Provider education 	Audit & Feedback 	Clinical decision support 	Financial incentives 
Different beliefs & attitudes about pre-op testing		X	X		
Different surgeon, anesthesia, & other staff perspectives about pre-op testing	X			X	
Unequal awareness of evidence-based guidelines/standardization	X	X			
Cultural norms	X	X		X	
Fear of adverse events, Concern for medico-legal risk		X	X		
Facilities are not motivated to reduce over testing overtreatment since it leads to lower reimbursement					X

# MM Pilot Timeline



Met with Anesthesia



Met with Minimal Invasive Surgery Unit



**CHART REVIEW**



DEC

JAN

FEB

MAR

APR

MAY

JUNE

JULY

AUG

SEPT

OCT

NOV

Met with Surgical Oncology Division



Met with Preop Clinic



Procedure Pass Enhancements





# EHR Enhancements: Procedure Pass










Here is an example: low risk lumpectomy

COVID and INR default order (COVID is no longer necessary for outpatient surgery). ECHO, EKG and stress test as options.

### Recommended Procedures and Labs

UM OR SON CASE REQUEST: Magnetic Seed Localization Lumpectomy with IOLM and SLNB  
These procedure and lab orders are recommended for the Procedure Pass based on the selected case.

Orders Needed

- Echocardiogram   
 Add order
- EKG   
 EKG 12 lead  
 Add order
- EKG Stress Test   
 Add order
- COVID-19 
- PT/INR  

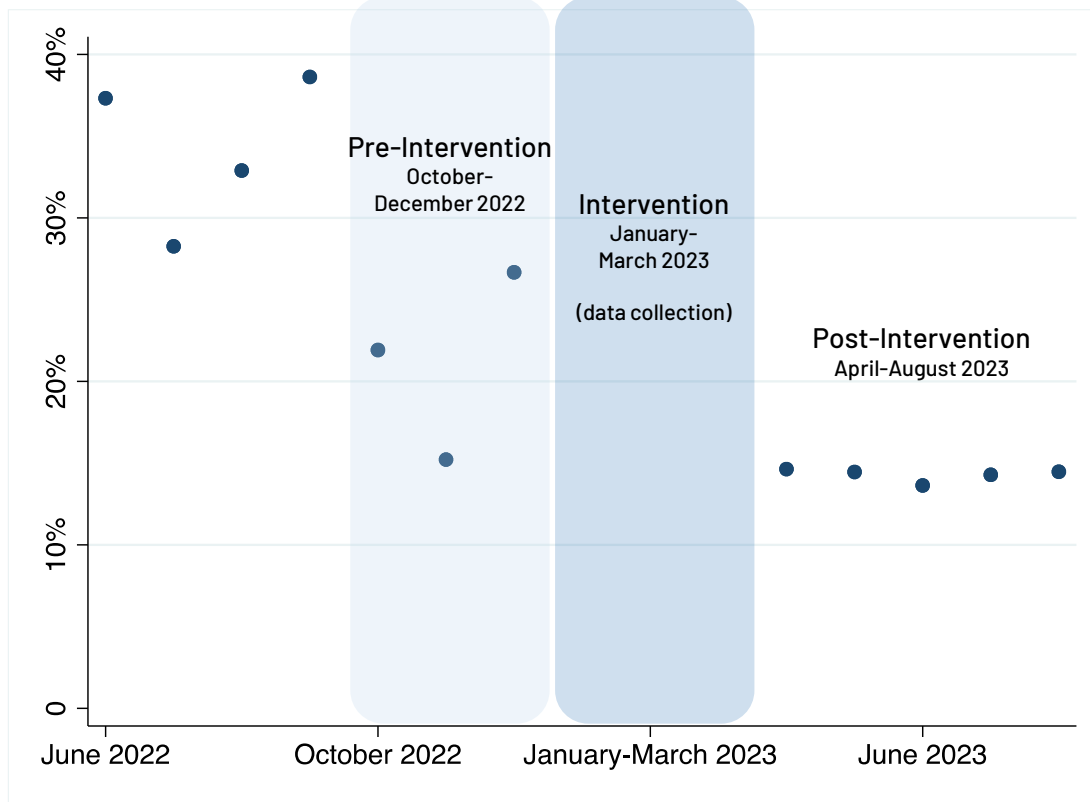
### Studies / Findings

Laboratory studies ordered: none indicated.

**EKG:** Does not require EKG per updated anesthesia guidelines July 2020.

# Unnecessary Preoperative Testing Decreased Overall

Proportion of patients receiving at least one unnecessary test



# Material Resources

Decision Aid, Testing Chart, PCP Package,  
and more



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## Announcing [ritesizetesting.org](https://ritesizetesting.org)

New domain name  
and redesigned  
web pages to  
support preop  
testing initiatives



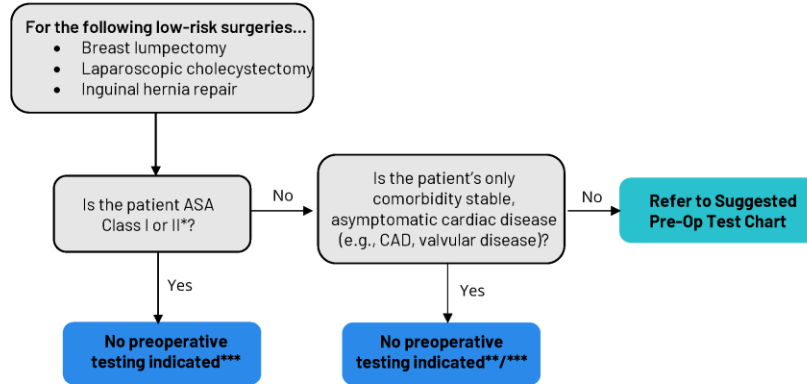
Insert your hospital logo here

This resource was developed in partnership with MPOG, MPI+VE, MSQC, and MVC.

# Decision Aid & Testing Chart Updated

Version 1.4 has been modified slightly and now also endorsed by ASPIRE/MPOG

## Suggested Preoperative Testing Decision Aid for Low-Risk Surgeries



**\*American Society of Anesthesiologist (ASA) Physical Status Classification System:**

**ASA Class I:** Normal healthy patient. Non-smoking, no or minimal alcohol use, no acute or chronic disease, normal BMI.

**ASA Class II:** Mild systemic disease without substantive functional limitations. Current smoker, obesity (30<BMI<40), well-controlled DM/HTN, mild lung disease.

**ASA Class III:** Severe Systemic disease with substantive functional limitations, poorly controlled DM/HTN, COPD, morbid obesity (BMI ≥ 40), active hepatitis, alcohol dependence or abuse, pacemaker, moderate reduced EF, ESRD on dialysis, prior MI, CVA, TIA, or CAD/stents > 3 months ago

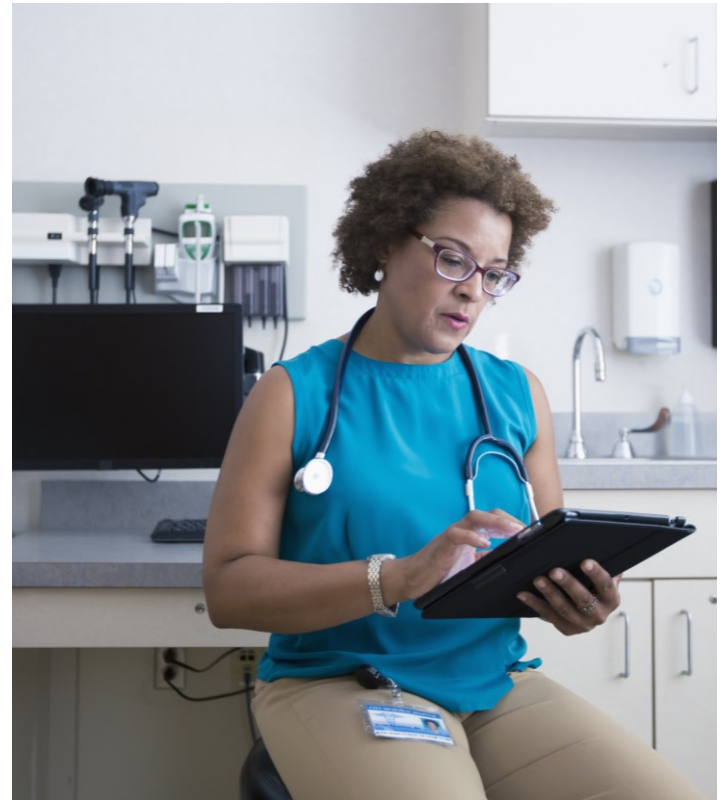
\*\*May consider EKG if none available within the past ~6 months  
\*\*\*Except recent (3-6 months) potassium if on diuretic

All recommendations in this document pertain to non-pregnant, adult patients undergoing low-risk procedures. They do not replace clinical judgment and are intended as guidance only.

## Engaging Primary Care Physicians

Sites with experience reducing preop testing commonly cite PCPs as the source of test orders

- ▶ We recommend engaging PCPs as partners, and are developing a PCP Package to engage them



**INPUT REQUESTED:** Our team will reach out for feedback on these materials after the meeting

# Connect with RITE-Size & Hospital Peers



## CURRENT:

- ▶ Leverage resources on [ritesizetesting.org](https://ritesizetesting.org)
- ▶ Attend MVC preop testing workgroups
  - ▶ May 14, 12-1pm
  - ▶ Aug. 6, 12-1pm
  - ▶ Nov. 5, 12-1pm

RSVP and event details available at <https://michiganvalue.org/upcoming-events>

## FUTURE:

- ▶ Select preop testing for future MSQC and/ or MVC P4P cycles
- ▶ Contact RITE-Size team about joining study program in 2025

# Thank You!

## Any questions?

You can reach us at:

- ▶ [drnathan@umich.edu](mailto:drnathan@umich.edu)
- ▶ [ldossett@med.umich.edu](mailto:ldossett@med.umich.edu)

