Michigan Value Collaborative

MVC Preoperative Testing Workgroup

March 15, 2023

Today's Presenter

Hari Nathan, MD, PhD

Director, Michigan Value Collaborative

Housekeeping

Recording

- This session is being recorded; slides and the recording will be shared with attendees.

Questions

- We will be monitoring the chat throughout the presentation so feel free to add questions.

Post-Workgroup Survey

- Your feedback is important! Please complete the post-workgroup survey (link to be provided).

Collaborating to Reduce Preoperative Testing

Hari Nathan, MD, PhD
March 15, 2023

Michigan Value Collaborative

Agenda

- Introduction to MVC
- Overview of Preoperative Testing Collaboration
- Discussion

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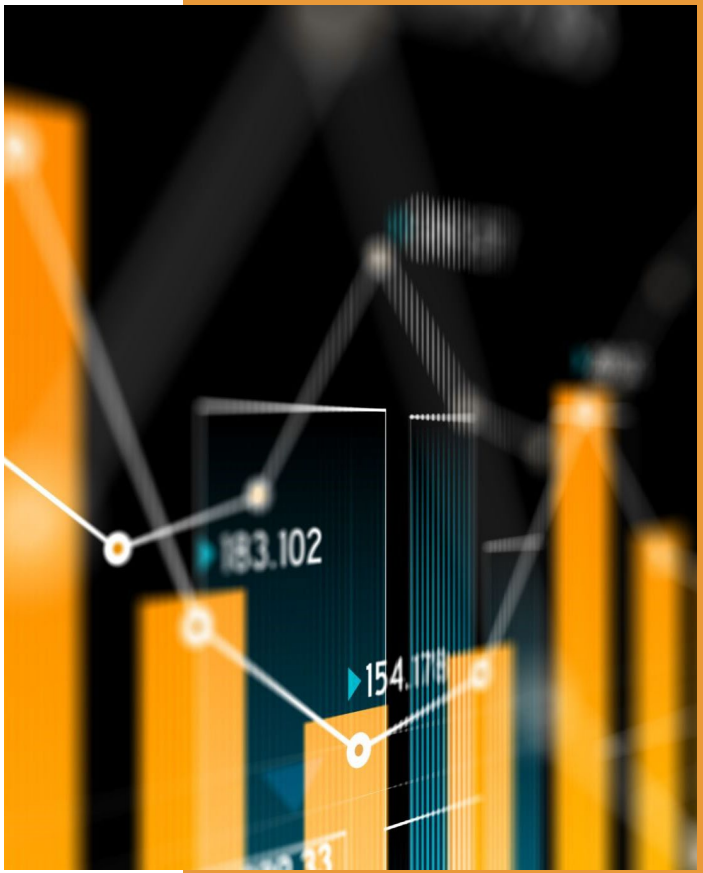
Michigan Value Collaborative

PURPOSE

To improve the health of Michigan through sustainable, high-value healthcare

VISION

People accessing the right care, at the right time, at the right cost



143

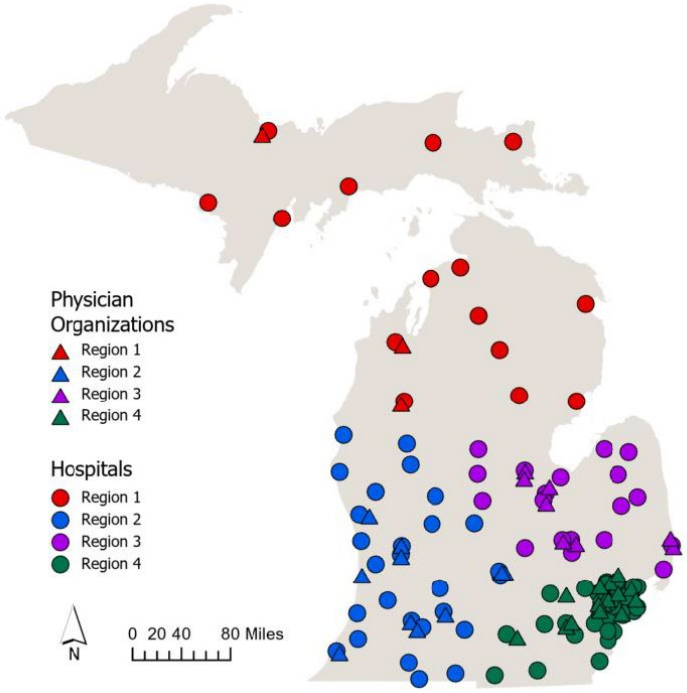
member hospitals and POs

40+

medical and surgical conditions
represented in processed claims data

10

years of episode-based
insights on healthcare value



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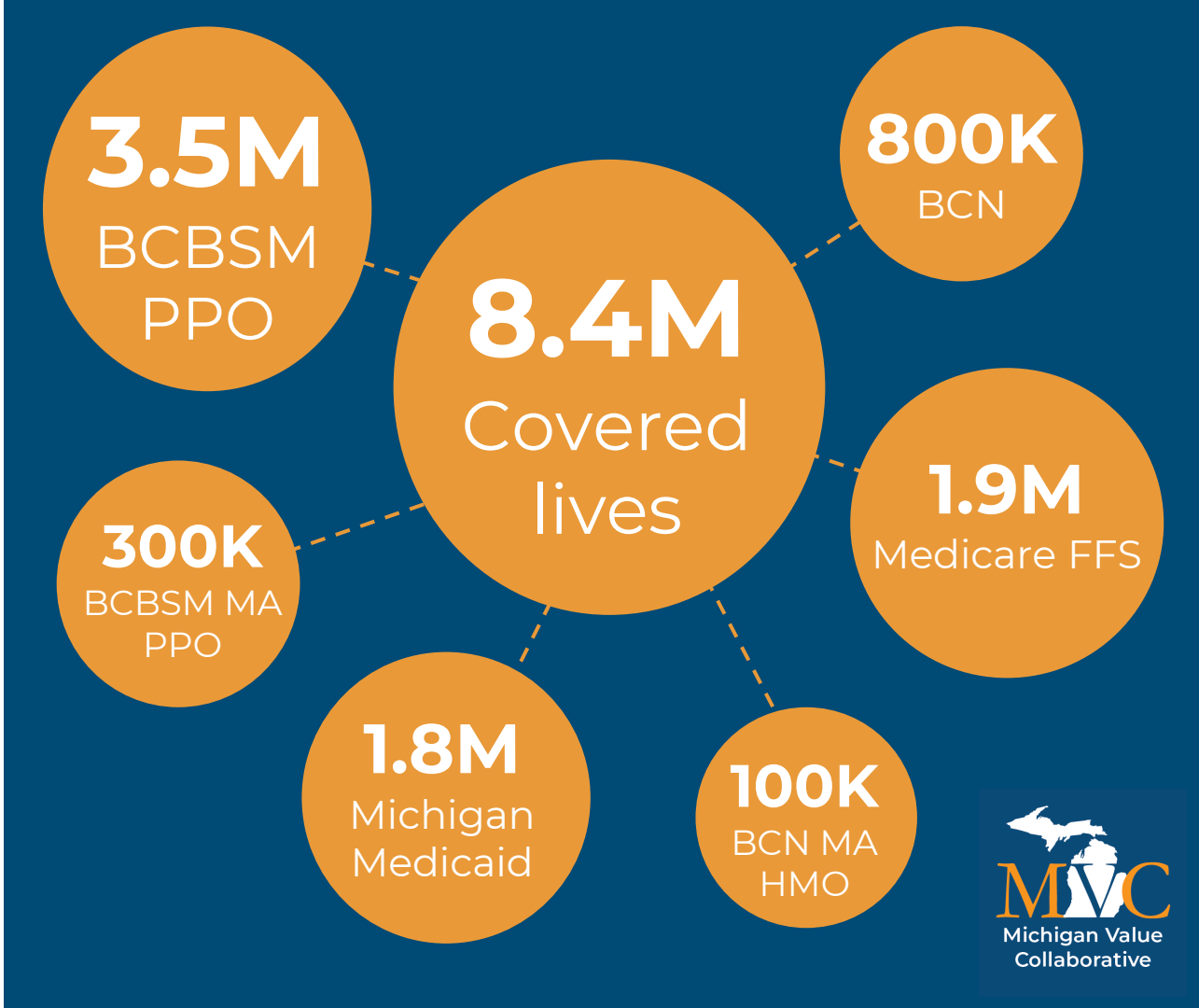
MVC DATA SOURCES

MVC administrative claims data comprise approximately 84% of Michigan's insured population.



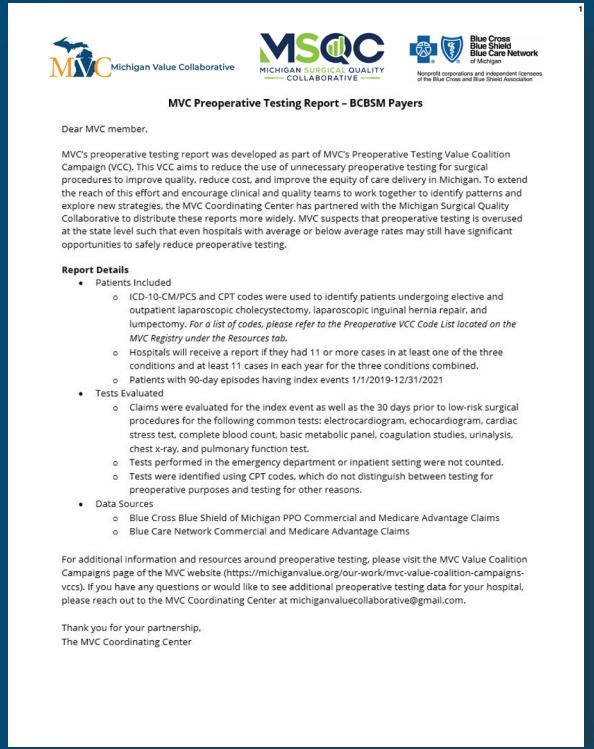
Preoperative Testing Value Campaign

Goal: Reduce unnecessary testing before low-risk surgery

in collaboration with

MPrOVE

MSQC
MICHIGAN SURGICAL QUALITY COLLABORATIVE



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Nonprofit corporations and independent licensees of the Blue Cross and Blue Shield Association

MVC Preoperative Testing Report – BCBSM Payers

Dear MVC member,

MVC's preoperative testing report was developed as part of MVC's Preoperative Testing Value Coalition Campaign (VCC). This VCC aims to reduce the use of unnecessary preoperative testing for surgical procedures to improve quality, reduce cost, and improve the equity of care delivery in Michigan. To extend the reach of this effort and encourage clinical and quality teams to work together to identify patterns and explore new strategies, the MVC Coordinating Center has partnered with the Michigan Surgical Quality Collaborative to distribute these reports more widely. MVC suspects that preoperative testing is overused at the state level such that even hospitals with average or below average rates may still have significant opportunities to safely reduce preoperative testing.

Report Details

- Patients Included
  - ICD-10-CM/PCS and CPT codes were used to identify patients undergoing elective and outpatient laparoscopic cholecystectomy, laparoscopic inguinal hernia repair, and lumpectomy. *For a list of codes, please refer to the Preoperative VCC Code List located on the MVC Registry under the Resources tab.*
  - Hospitals will receive a report if they had 11 or more cases in at least one of the three conditions and at least 11 cases in each year for the three conditions combined.
  - Patients with 90-day episodes having index events 1/1/2019-12/31/2021
- Tests Evaluated
  - Claims were evaluated for the index event as well as the 30 days prior to low-risk surgical procedures for the following common tests: electrocardiogram, echocardiogram, cardiac stress test, complete blood count, basic metabolic panel, coagulation studies, urinalysis, chest x-ray, and pulmonary function test.
  - Tests performed in the emergency department or inpatient setting were not counted.
  - Tests were identified using CPT codes, which do not distinguish between testing for preoperative purposes and testing for other reasons.
- Data Sources
  - Blue Cross Blue Shield of Michigan PPO Commercial and Medicare Advantage Claims
  - Blue Care Network Commercial and Medicare Advantage Claims

For additional information and resources around preoperative testing, please visit the MVC Value Coalition Campaigns page of the MVC website (https://michiganvalue.org/our-work/mvc-value-coalition-campaigns-vccs). If you have any questions or would like to see additional preoperative testing data for your hospital, please reach out to the MVC Coordinating Center at michiganvaluecollaborative@gmail.com.

Thank you for your partnership,
The MVC Coordinating Center

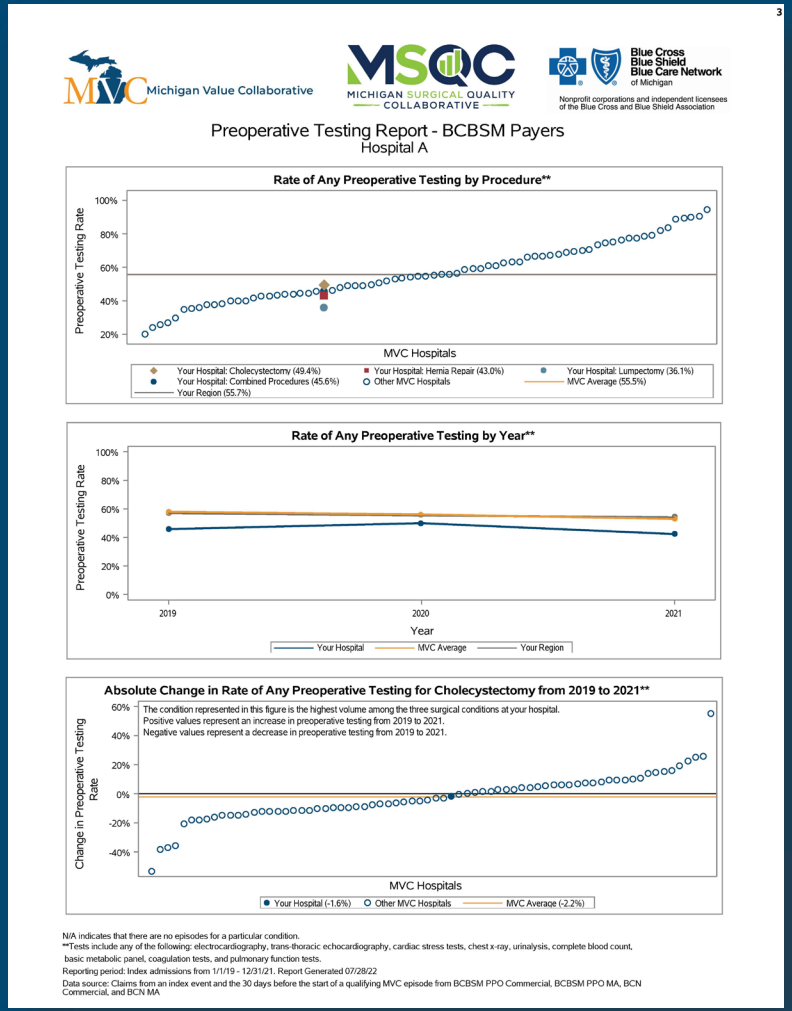
MVC Michigan Value Collaborative

Current State

What does MVC data and research evidence reveal about current testing practices?

MVC Preop Testing Report Findings

- Wide inter-hospital variation in preoperative testing rates
  - Between 20% and 98%
- Evidence of intra-hospital variation by surgeon
- Little to no change over years
  - MVC reports in spring 2023 will be a fair representation of testing rates at your hospital



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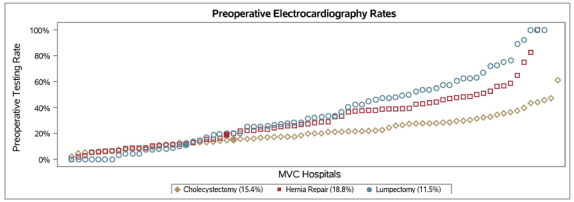
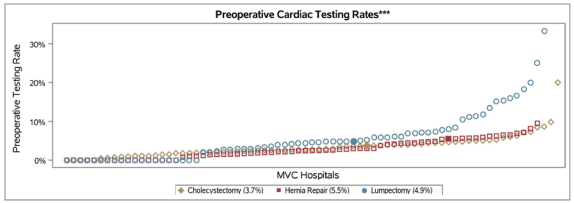
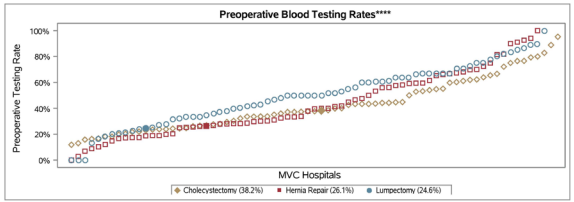
Preoperative Testing Report - BCBSM Payers
Hospital A







N/A indicates that there are no episodes for a particular condition.
***Cardiac tests include any of the following: trans-thoracic echocardiography and cardiac stress tests
****Blood tests include any of the following: complete blood count, basic metabolic panel, and coagulation tests
Reporting period: Index admissions from 1/1/19 - 12/31/21. Report Generated 07/28/22
Data source: Claims from an index event and the 30 days before the start of a qualifying MVC episode from BCBSM PPO Commercial, BCBSM PPO MA, BCN Commercial, and BCN MA

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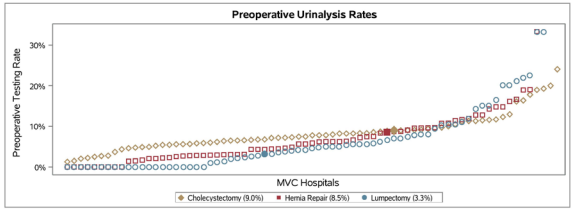

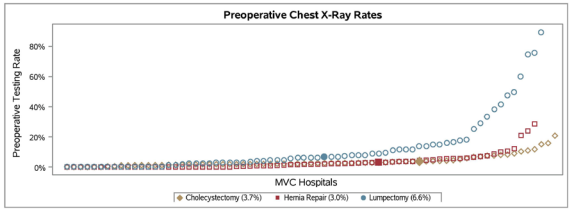

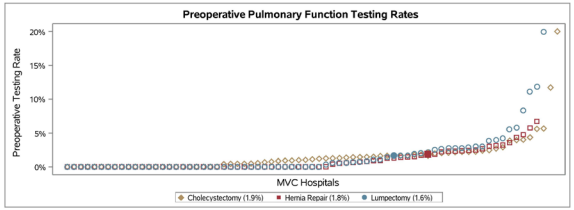

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What Does the Evidence Tell Us?

In low-risk surgery, routine testing

- **does not improve patient outcomes**
- **costs the U.S. an estimated $85.2 million annually**

Multiple medical societies 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. Mainor, JD, MPH; Stephanie Raymond, BA; Qianfei Wang, MS; E. John Orav, PhD; Chiang-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[1*†], G. Fritsch[2†], M. Flamm[1,3], B. Hansbauer[1], N. Bachofner[1], E. Mann[1], M. Bock[2,4] and A. C. Sönnichsen[1,5]

Health Services Research

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

Wilson Sui, 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,[1] Akarin Nimmannit,[2] Sirirat Rattana-arpa,[1] Siritda Chatrattanakulchai,[1] Puttachard Saengtawan,[1] and Aungsumat Wangdee[1]

Implementation Challenges

Common Points of Resistance or Myths about Preoperative Testing

- “It’s better to be safe than sorry.”
- “I don’t want my case to get canceled.”
- “I don’t see any benefits to this.”
- “There’s no harm in ordering these tests.”
- “Everybody orders these tests.”

De-Implementation Barriers

- Gathering good data and clinical feedback
- Provider habits
- Conflicting EMR processes

Opportunities to move the needle

Ready-to-use resources from MVC, MSQC, and MPrOVE

Provider Education

NEW RESOURCE WEBSITE

Supported by MSQC, MPrOVE, & MVC

https://sites.google.com/umich.edu/waivetheworkupmichigan/home

Provider Education

Decision Aid

Insert your hospital logo here

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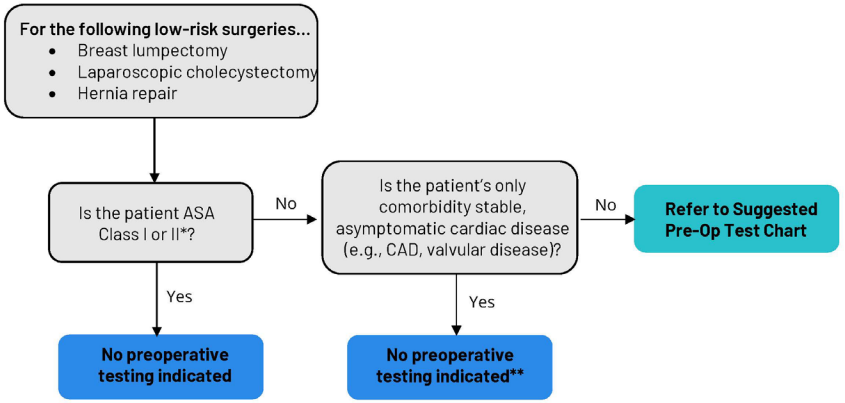
This resource was developed in partnership with MPrOVE, MSQC, and MVC.

Pre-Op 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 ED, ESRD on HD, prior MI, CVA, TIA, or CAD/stents.

**May consider EKG if none available within the past ~6 months

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.

Preop Testing Chart

Insert your hospital logo here

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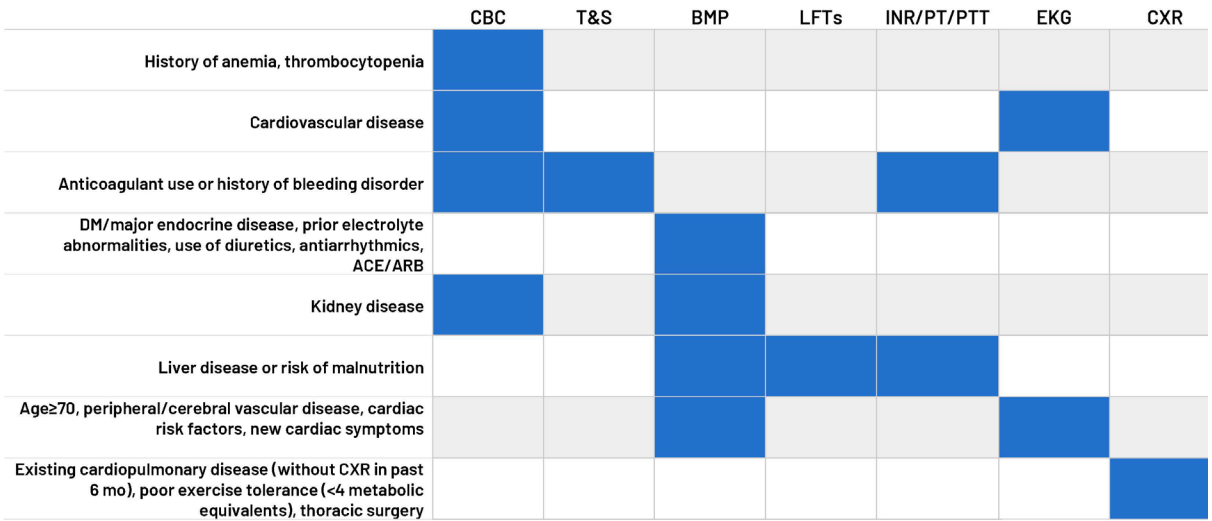
Suggested Pre-Op Tests for Patients Undergoing Low-Risk Surgery Who Are ASA III or Above

This chart does not replace clinical judgment and is intended as guidance only



CBC: Complete blood count
T&S: Type and screen
BMP: Basic metabolic panel

LFTs: Liver function tests
INR: International normalized ratio
PT: Prothrombin time

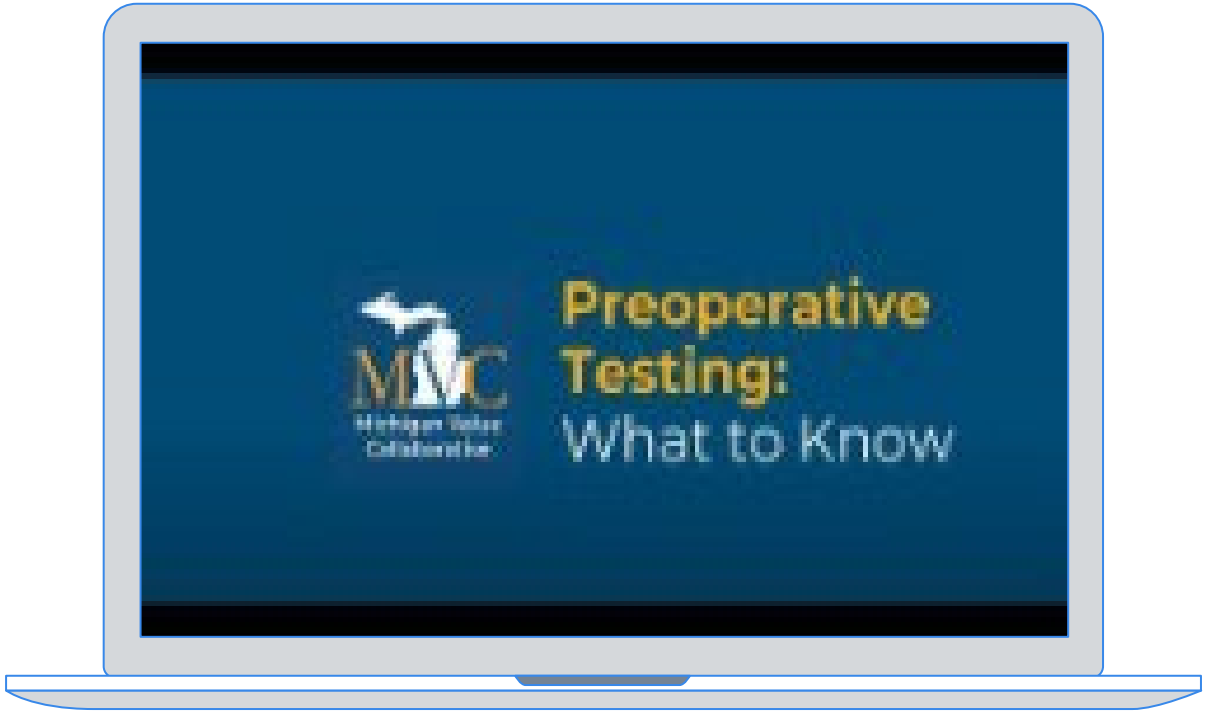
PTT: Partial thromboplastic time
EKG: Electrocardiogram
CXR: Chest radiography

ACE: Angiotensin-converting enzyme inhibitors
ARB: Angiotensin receptor blocker

References:

- Mocon A, McRitchie D, Tharani A. *Drop the Pre-Op: A toolkit for reducing unnecessary visits and investigations in pre-operative clinics*. Ontario, CA. 2019.
- Chow, W. B., Rosenthal, R. A., Merkow, R. P., Ko, C. Y., & Esnaola, N. F. (2012). Optimal preoperative assessment of the geriatric surgical patient: a best practices guideline from the American College of Surgeons National Surgical Quality Improvement Program and the American Geriatrics Society. *Journal of the American College of Surgeons, 215*(4), 453-466.
- National Guideline Centre (UK). Preoperative Tests (Update): Routine Preoperative Tests for Elective Surgery. London: National Institute for Health and Care Excellence (NICE); 2016 Apr. (NICE Guideline, No. 45.) Acknowledgements.

Provider Education



Peer Support

Discussion Questions

What does preoperative testing look like at your facility?

In your facility, who determines preoperative testing guidelines?

What tools are in development or currently in place to improve preoperative testing practices?

What can MVC provide to support your efforts?

What barriers has your facility faced while trying to improve preoperative testing practices?

Upcoming Events

- **Diabetes Workgroup, March 21, 11 a.m. – 12 p.m.**
  Presenter: Mary Wozniak, MPH, CHES
  Senior Program Specialist, National Kidney Foundation of Michigan
- **MVC Lunch & Learn, March 29, 12 – 1 p.m.**
  To register: https://bit.ly/3L3IGZ3
- **Health in Action, April 5, 1 – 2 p.m.**
  TBA

REGISTER HERE

Thank you!

Michigan-Value-Collaborative@med.umich.edu

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