Michigan Urological Surgery Improvement Collaborative

Making Michigan (and beyond) **#1 in Urologic Care**

June 16, 2023

Welcome

Khurshid Ghani, MD, MS, FRCS

Principles of MUSIC

- Collegial
- Non-competitive
- Evidence-based
- Confidential
- No “billboards”

- Actionable data
- Focus on effectiveness
- Make a contribution
- No secrets

Agenda

- Data Abstractor Breakout
- Welcome & General Updates
- **ROCKS** – Strategies to Generate Meaningful Change: New Way to Look at Data
- Lunch
- **MUSIC CARES**
- **KIDNEY** – Technical Review of Partial Nephrectomy: Results of Video Review
- Break
- **PROSTATE** – Be Positive about the Negative Predictive Value of MRI: When to Avoid Biopsy
- Closing Remarks

Meeting Webpage

Scan to

- Join the virtual discussion
- View resources discussed today
- Access meeting polls
- Claim CME

Welcome! STAFF

New Coordinating Center Members

Jerison Ross
ROCKS Manager

Elaina Shoemaker
SOUL Manager

Sabrina Clark
SOUL Coordinator

Sabir Meah
Statistician

Katie Waters
Administrative Specialist

Welcome! MEMBERS

First In-person Collaborative-wide Meeting

David Kozminski, MD
Western Michigan
Urological Associates

Andrew Schwinn, DO
Trinity Health
IHA Urology

Kristian Stensland, MD
Michigan Medicine

Jack Zuckerman, MD
Bay Area Urology

Welcome! GUESTS

Mark Hemmila, MD
Michigan Medicine

Howard Wolinsky
Active Surveillance
Patients International

Welcome! PATIENT ADVOCATES

- Doug Adams
- James Humphries
- Mark Jamrog

Thank you! BCBSM TEAM

Faris Ahmad, MD

Tom Leyden

Daria Massimilla

Blue Cross
Blue Shield
Blue Care Network
of Michigan

Value Based Reimbursement **2023** payout - *standard* (3%)

Population-based Performance Measure*	Baseline Performance	Target Performance	Current Performance
ROCKS PRO Enrollment	8 practices AND 35% enrollment	15 practices AND 50% enrollment	15 practices AND 44% enrollment
Opioid-free radical prostatectomy discharge pathway	53%	66%	65%

**MUSIC as a collaborative must meet the target for both metrics to be eligible for the "standard" VBR*

Value Based Reimbursement **2023** payout - *additional* (2%)

Population-based Performance Measure*	Baseline Performance	Target Performance	Current Performance
Transition to treatment without risk reclassification for patients on active surveillance for prostate cancer	32%	18%	18%
Ureteral stenting following URS in pre-stenting patients	66%	62%	64%
Surgery for **benign renal masses**	10%	9%	14%

**MUSIC as a collaborative must meet the target for two of the three metrics to be eligible for the "additional" VBR*

Value Based Reimbursement **2023** - *smoking cessation* (2%)

Population-based Performance Measure*	Baseline Performance	Target Performance	Current Performance
Smokers receiving **smoking cessation counseling**	69%	72%	80%
Establish a baseline for **smokers who have quit at 3 months post-RP**	N/A	TBD	28%

**MUSIC as a collaborative must meet the target for both metrics to be eligible for the "smoking cessation" VBR*

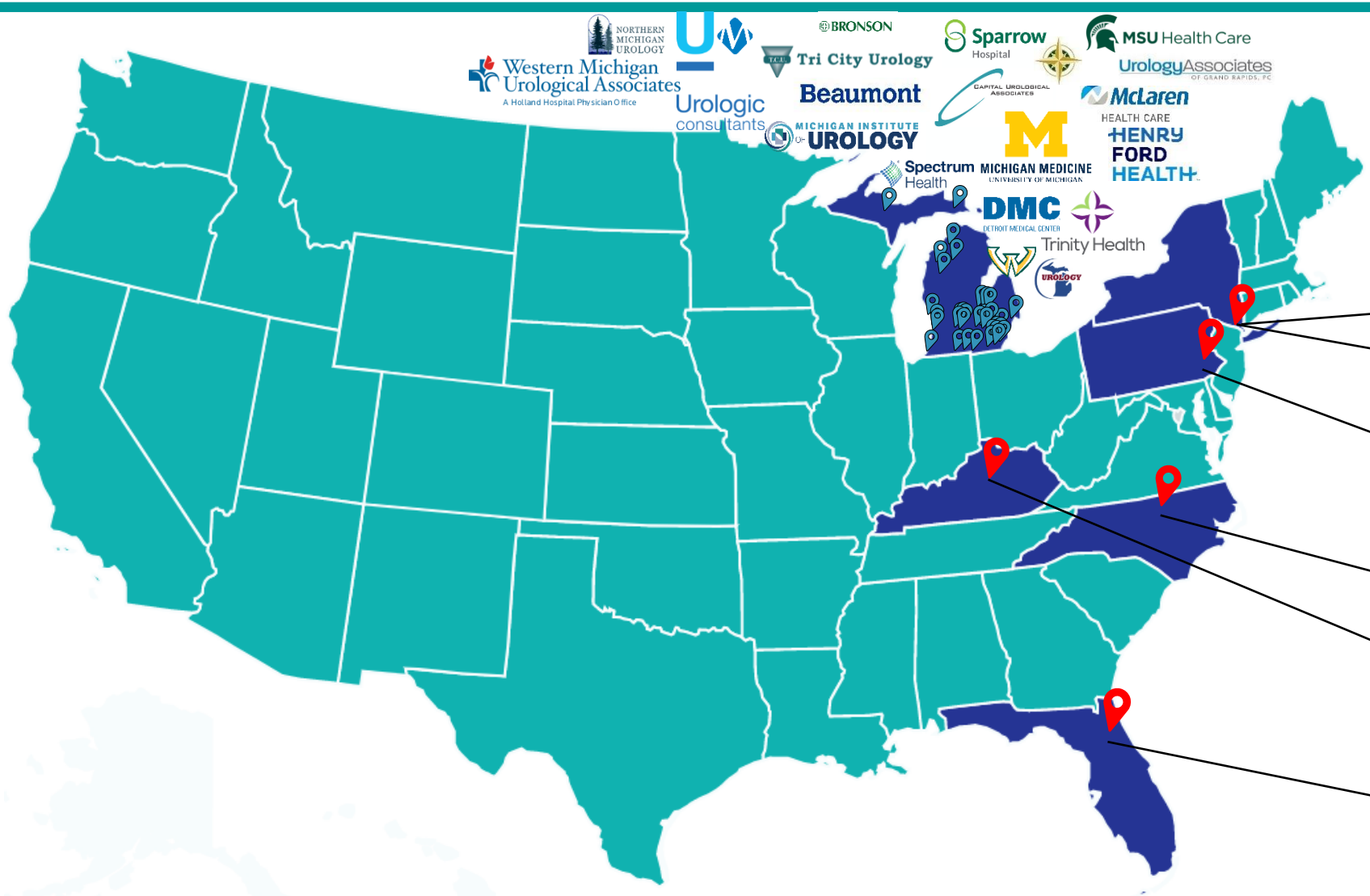
MUSIC's Purpose

A community that partners to improve patients' lives by inspiring high-quality care through data-driven best practices, education, and innovation

The **Community** is Growing: APP Working Group

- Sida Bai, War Memorial Hospital
- Jacob Clapper, Capital Urological Associates
- Nick Dybas, Michigan Medicine
- Ivelisse Leonor, Spectrum Lakeland
- Alex Munchiando, Comprehensive Urology
- Mary Nowlin, Michigan Medicine
- Catherine Randall, MyMichigan
- Allison Toth, Corewell

The **Community** is Growing: "Outdoor" MUSIC



Montefiore Health System

Mount Sinai

Fox Chase Cancer Center Temple Health

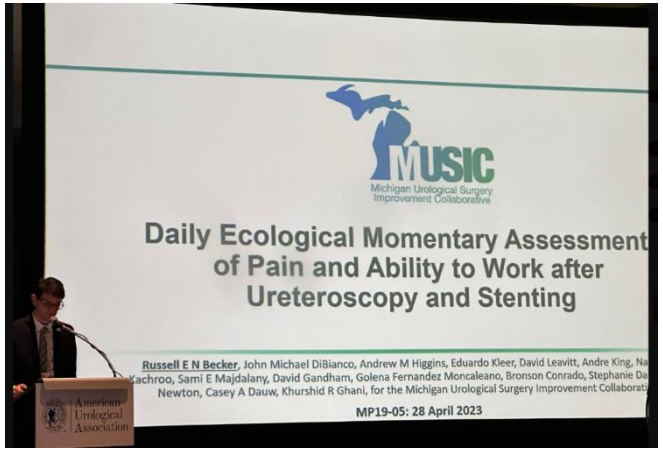
UNC Health Care

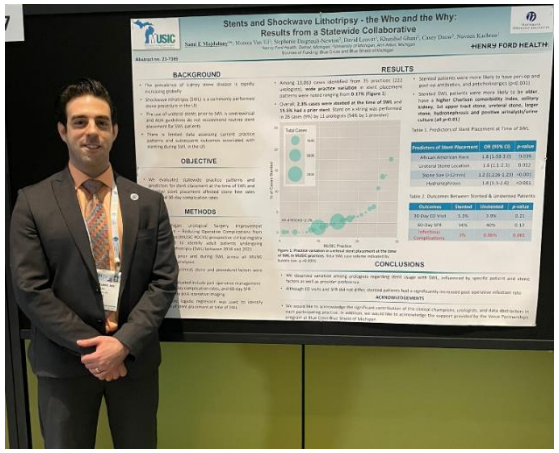
HealthCare

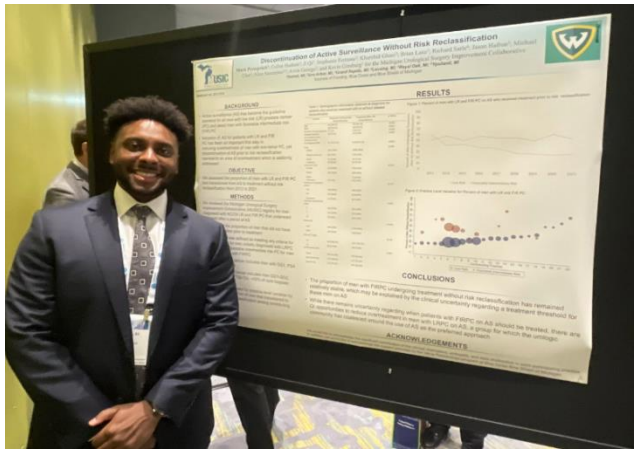
UFHealth University of Florida Health

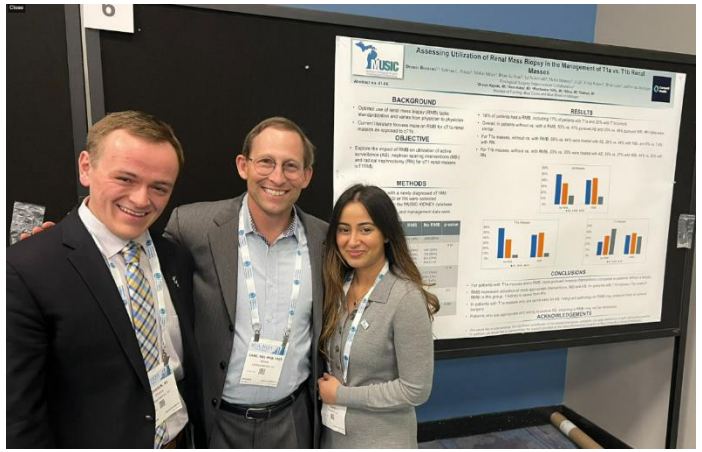
Partners to **Improve Patients' Lives**

Inspiring high quality care – MUSIC at the AUA









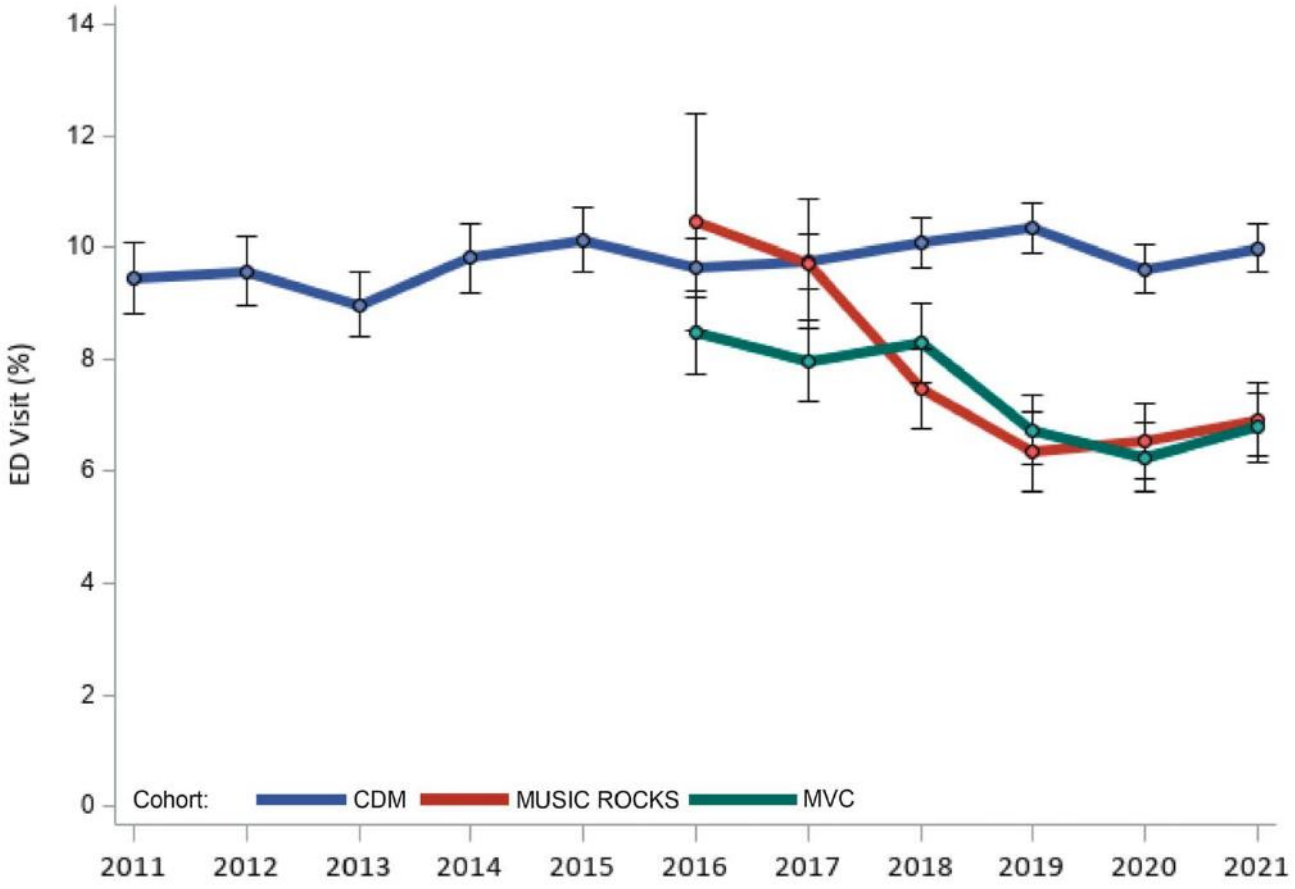
Through **data-driven…**

Best Practices (Postoperative ED visits after URS)

THE JOURNAL of UROLOGY®
Official Journal of the American Urological Association

Improving the Quality of Upper Urinary Tract Stone Surgery: External Validation of a Statewide Collaborative's Efforts to Reduce Emergency Department Visits After Ureteroscopy

Andrew M. Higgins,[1]* Stephanie Daignault-Newton,[1] Russell E. N. Becker,[1] Golena Fernandez Moncaleano,[1] Bonnie Cheng,[2] Chelsea Pizzo,[2] Mike Thompson,[2] Bronson Conrado,[1] Anna M. Johnson,[1] John M. Hollingsworth,[3] Khurshid R. Ghani,[1] and Casey A. Dauw[1]



Best Practices (Active Surveillance)

The Prostate

Upgrading on Per Protocol versus For Cause surveillance prostate biopsies: An opportunity to decreasing the burden of active surveillance

Michael Wang MD[1] | Andrew Lange MD[1] | David Perlman MD[1] | Ji Qi BS[2] | Arvin K. George MD[2] | Stephanie Ferrante BS[2] | Alice Semerjian MD[3] | Richard Sarle MD[4] | Michael L. Cher MD[1] | Kevin B. Ginsburg MD[1] | for the Michigan Urological Surgery Improvement Collaborative[2]

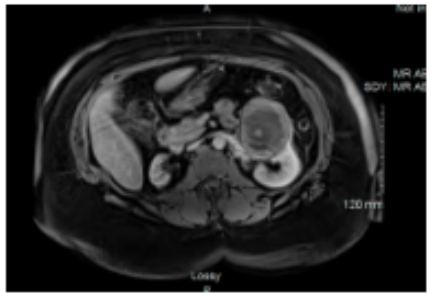
Education (KIDNEY Virtual Tumor Board)

UROLOGYPRACTICE®
An Official Journal of the American Urological Association

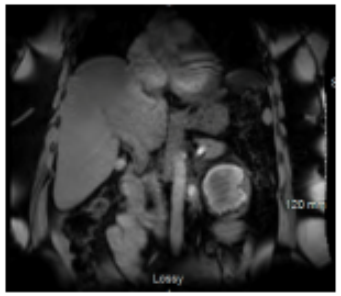
Utilization of a Virtual Tumor Board for the Care of Patients With Renal Masses: Experience From a Quality Improvement Collaborative

Mahmoud A. Hijazi, Zachary J. Prebay, Anna Johnson, Samantha Wilder, Amit Patel, Rohit Mehra, James E. Montie, Sabrina L. Noyes, Mahin Mirza, Mohammad Jafri, Alon Weizer, Richard Sarle, Khurshid R. Ghani, Craig Rogers, and Brian R. Lane ✉ for the Michigan Urologic Surgery Improvement Collaborative View fewer authors ✕

Sample VTB Case:



- 51 years old
- Female
- History of obesity, hypertension, and DM
- Presented with left flank pain
- GFR 80
- No hematuria
- Large 8.7 x 10.6 cm exophytic hemorrhagic cystic renal mass on the left
- Contralateral atrophic kidney
- R=3 E=2 N=2 L=2



Biopsy showed blood and necrosis and focal concern for renal cell carcinoma, clear cell.

Mass still 9 x 9 cm, mostly exophytic, anterior, and looks like it has a nice capsule around it.

We opted for short interval (8-week) re-imaging to assess improvement and characterization.

Scan showed improvement, mass still 9x9cm, mostly exophytic, anterior, and has a nice capsule around it

The patient is understandably anxious and wants this taken care of ASAP

Innovation (SOUL Clinical Trial)

SOUL
Stent Omission after Ureteroscopy and Lithotripsy

MUSIC
Michigan Urological Surgery Improvement Collaborative

pcori

Open to Enrollment!

Role of Patients in MUSIC

What is ASPI?

Active Surveillance Patients International (ASPI) will empower men diagnosed with low and intermediate risk prostate cancer, including Gleason 3+3 and favorable intermediate prostate cancer, Gleason 3+4 , by providing the latest information to allow for informed decisions with your physician, regarding approaches to active surveillance.

Our vision is to develop proactive patients by providing the latest data and fostering the understanding necessary to pursue the best outcomes with the least intervention.

Special Award to MUSIC from ASPI

Thank you Dr Arvin George!

Strategies to Generate Meaningful Change: New Way to Look at Data

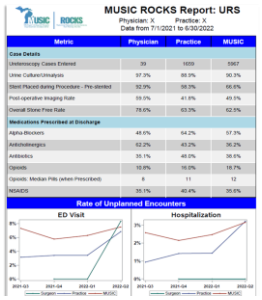
Casey Dauw, MD

How have we been able to drive change?

Provider and Practice Engagement

1. Collaborative-wide meetings and implementation dissemination site visits

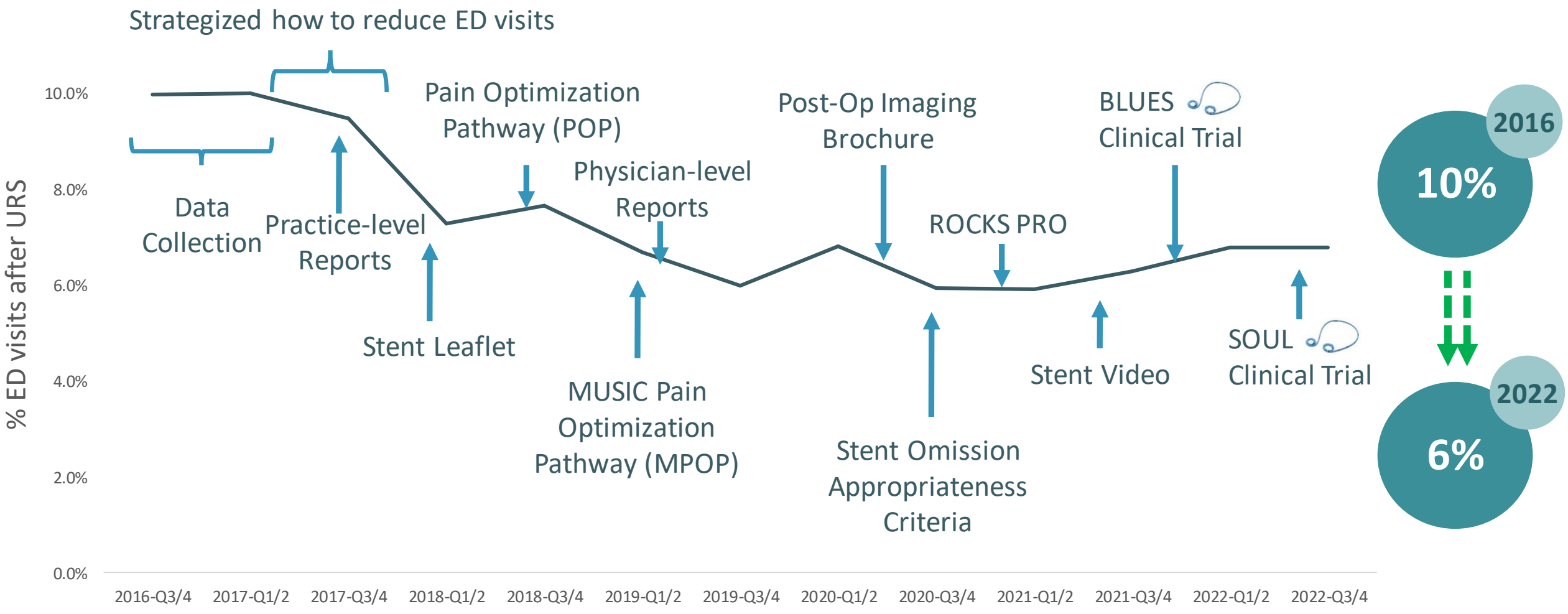
2. Financial incentives



3. Provider feedback reports

Decreasing ED Visits by Leveraging the CQI Model

MUSIC Playbook Data → Information → Action → Outcomes

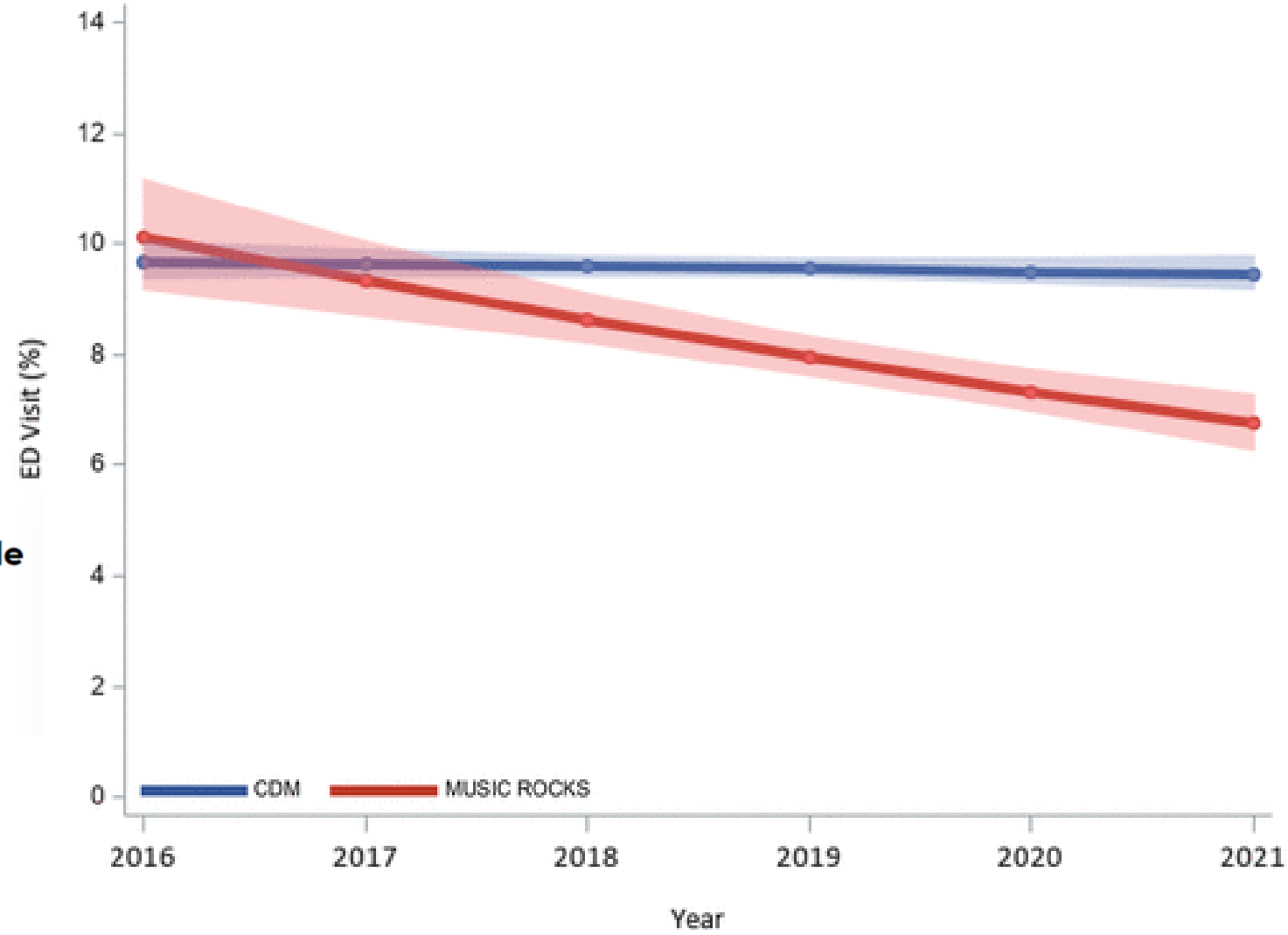


Michigan Leading the way in Reducing Unplanned ED Visits

THE JOURNAL of UROLOGY®
www.auajournals.org/journal/juro

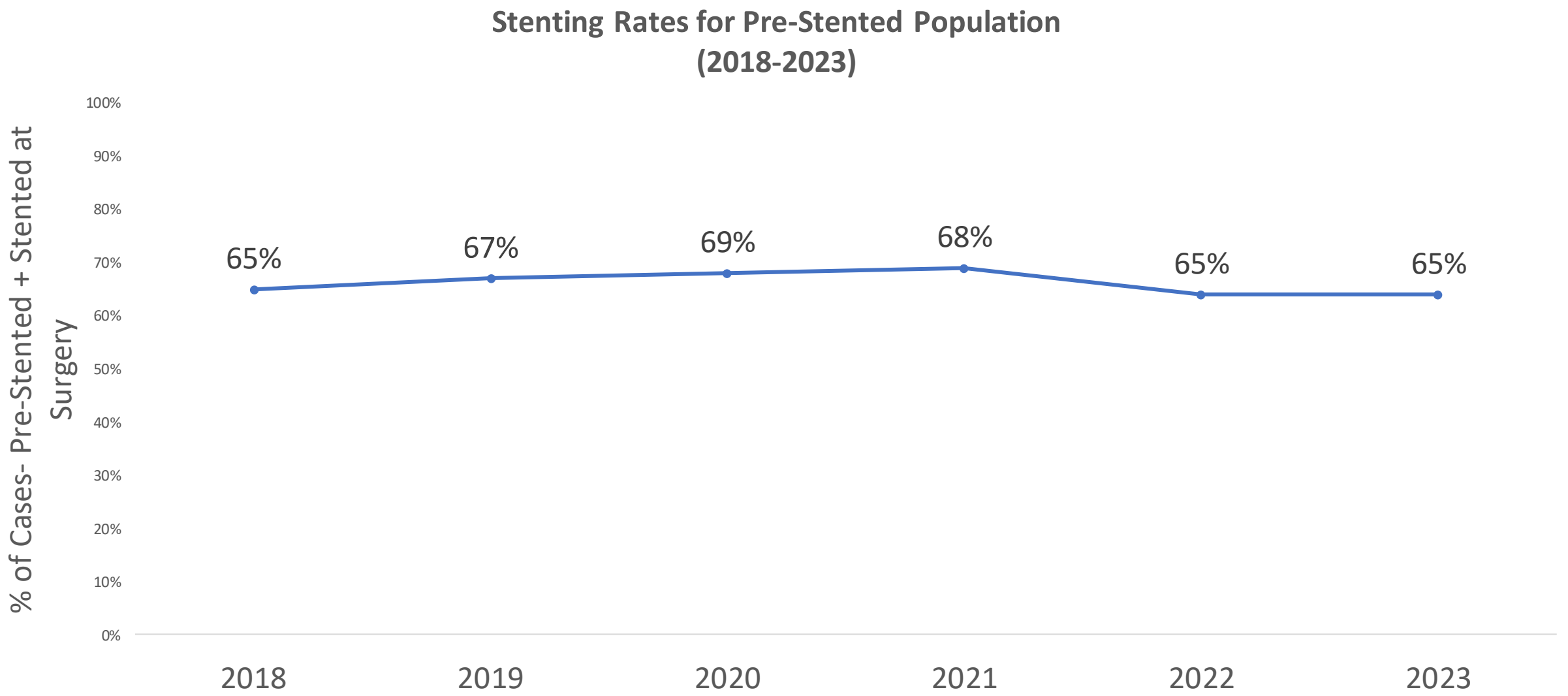
Improving the Quality of Upper Urinary Tract Stone Surgery: External Validation of a Statewide Collaborative's Efforts to Reduce Emergency Department Visits After Ureteroscopy

Andrew M. Higgins, Stephanie Daignault-Newton, Russell E. N. Becker, Golena Fernandez Moncaleano, Bonnie Cheng, Chelsea Pizzo, Mike Thompson, Bronson Conrado, Anna M. Johnson, John M. Hollingsworth, Khurshid R. Ghani, and Casey A. Dauw



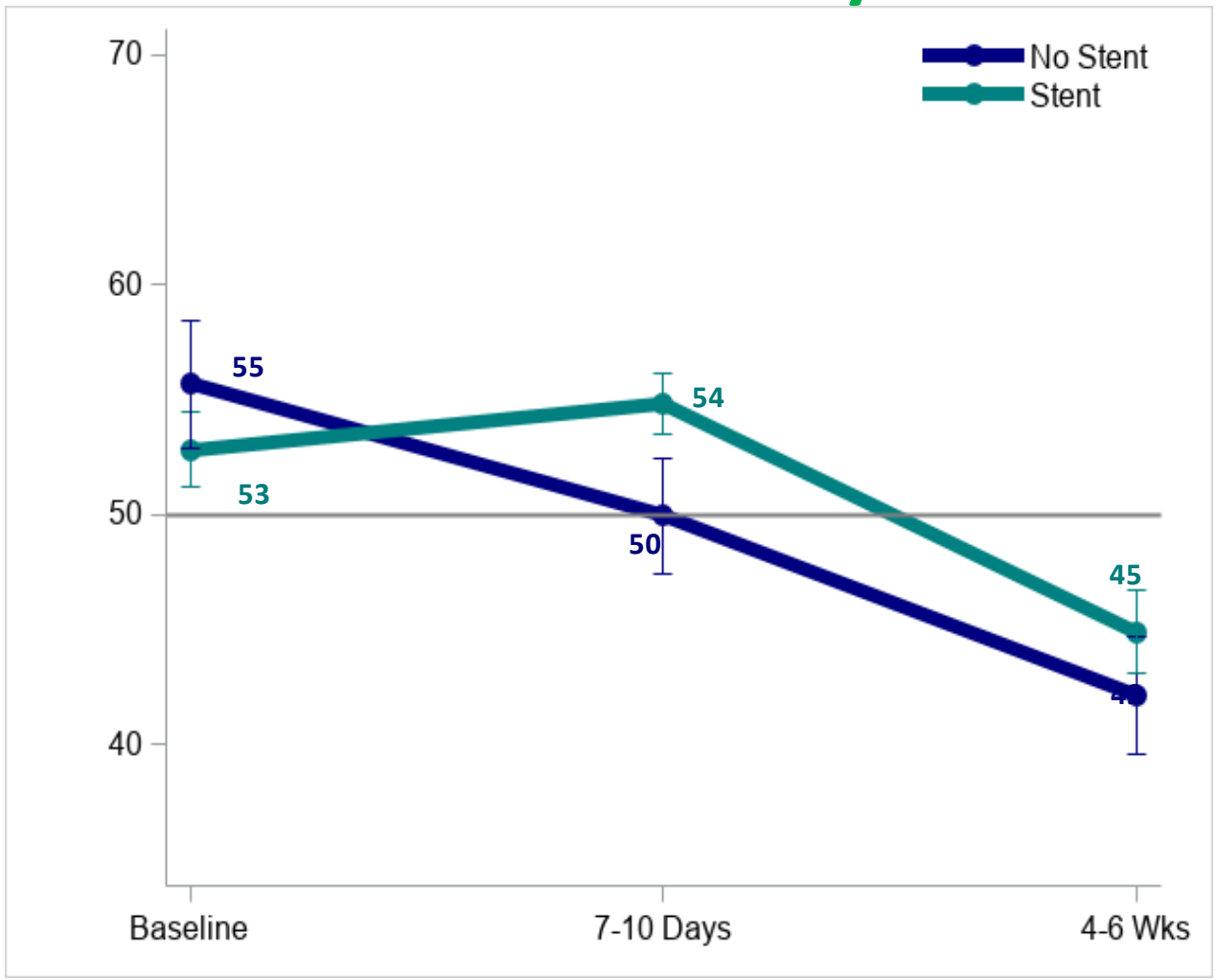
Higgins, A. M., Daignault-Newton, S., Becker, R. E., Moncaleano, G. F., Cheng, B., Pizzo, C., ... & Dauw, C. A. (2023). Improving the Quality of Upper Urinary Tract Stone Surgery: External Validation of a Statewide Collaborative's Efforts to Reduce Emergency Department Visits After Ureteroscopy. The Journal of Urology, 10-1097.

Pre-Stented Patients are Still Being Stented



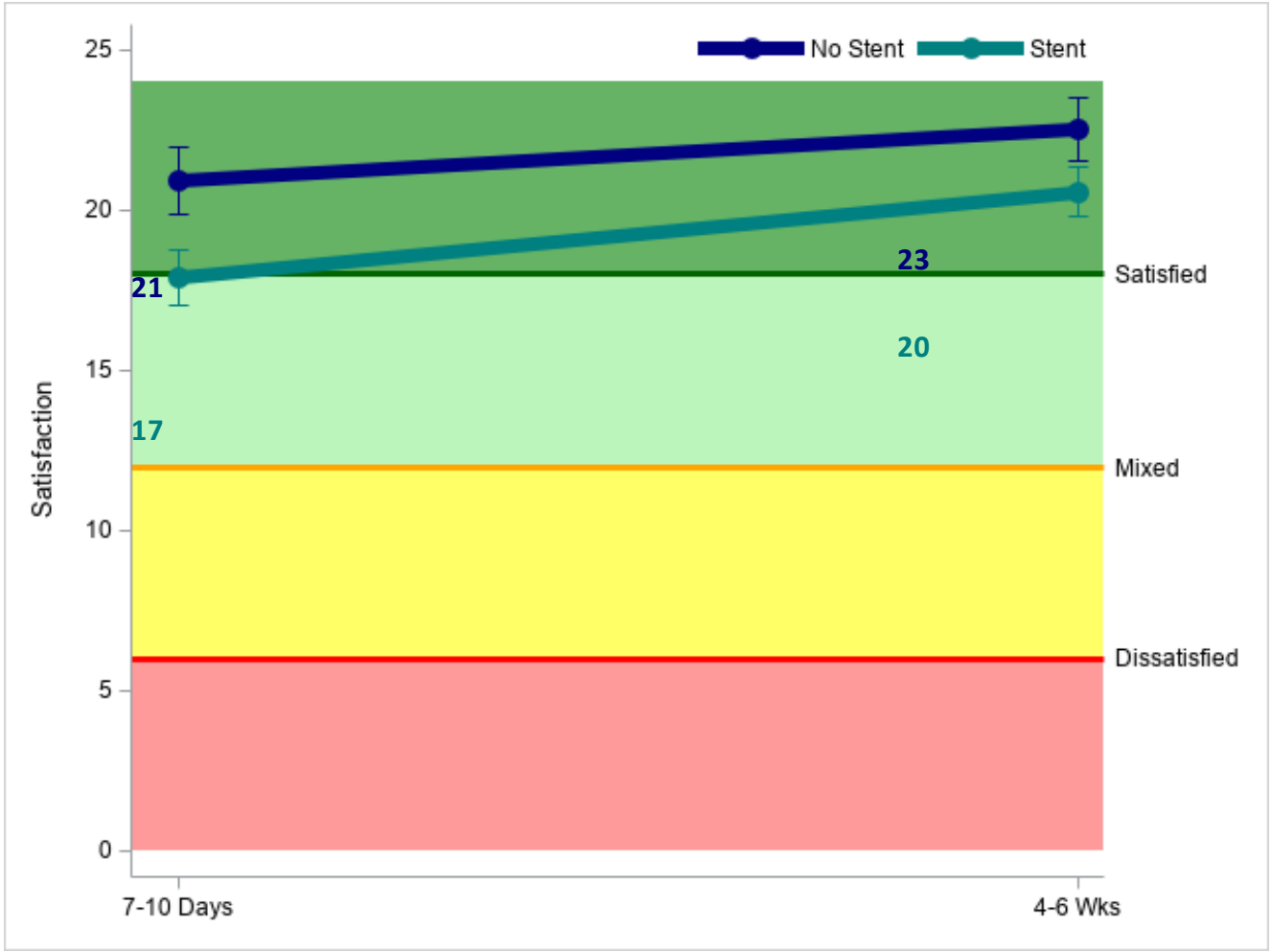
Stented Patients Report Higher Levels of Pain

Pain Intensity



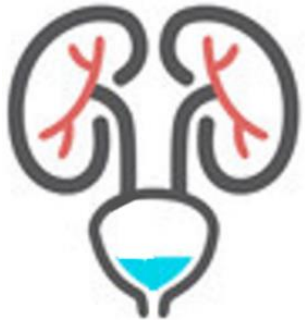
Stented Patients have Lower Satisfaction

Satisfaction

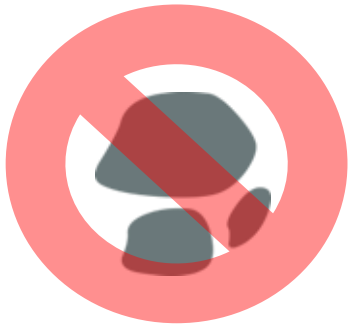


Stent Omission *in Pre-Stented Patients* Leads to Higher Stone-Free Rates

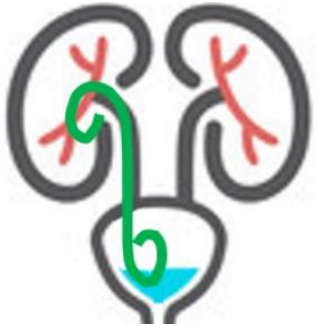
No Stent



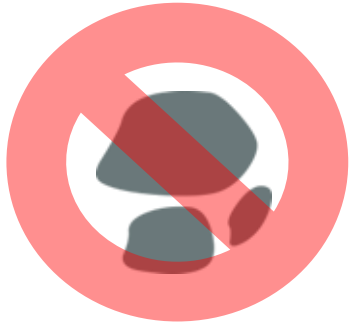
Stone-Free Rate: 68%



Stent



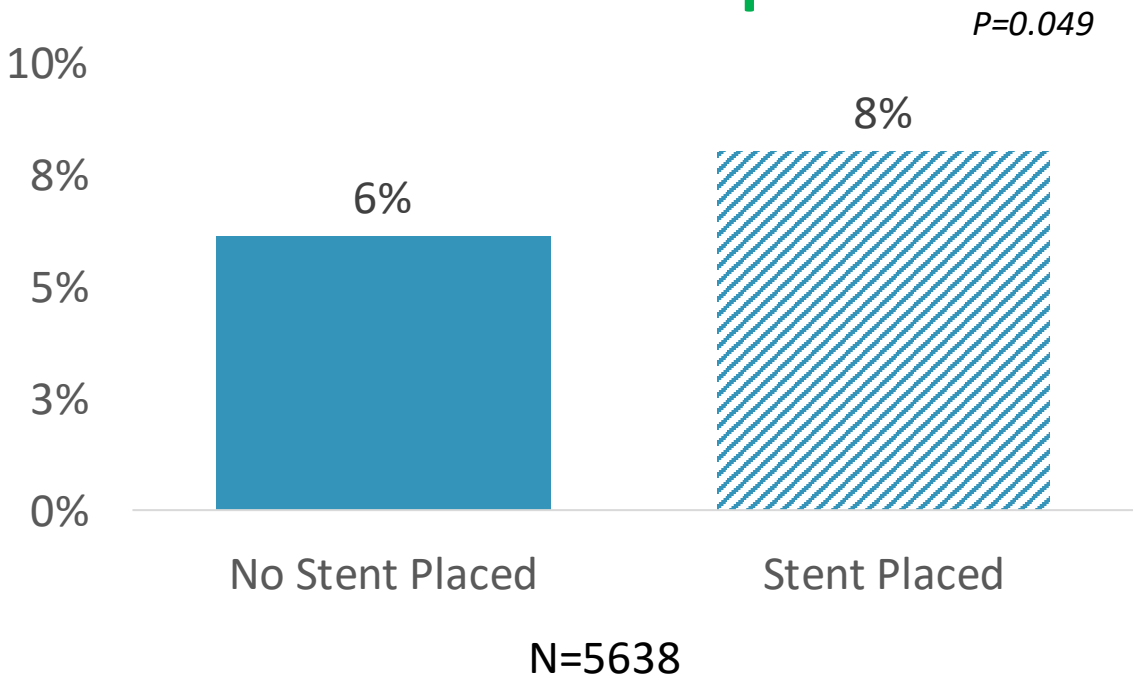
Stone-Free Rate: 58%



Stented Patients have Higher ED Visit Rates

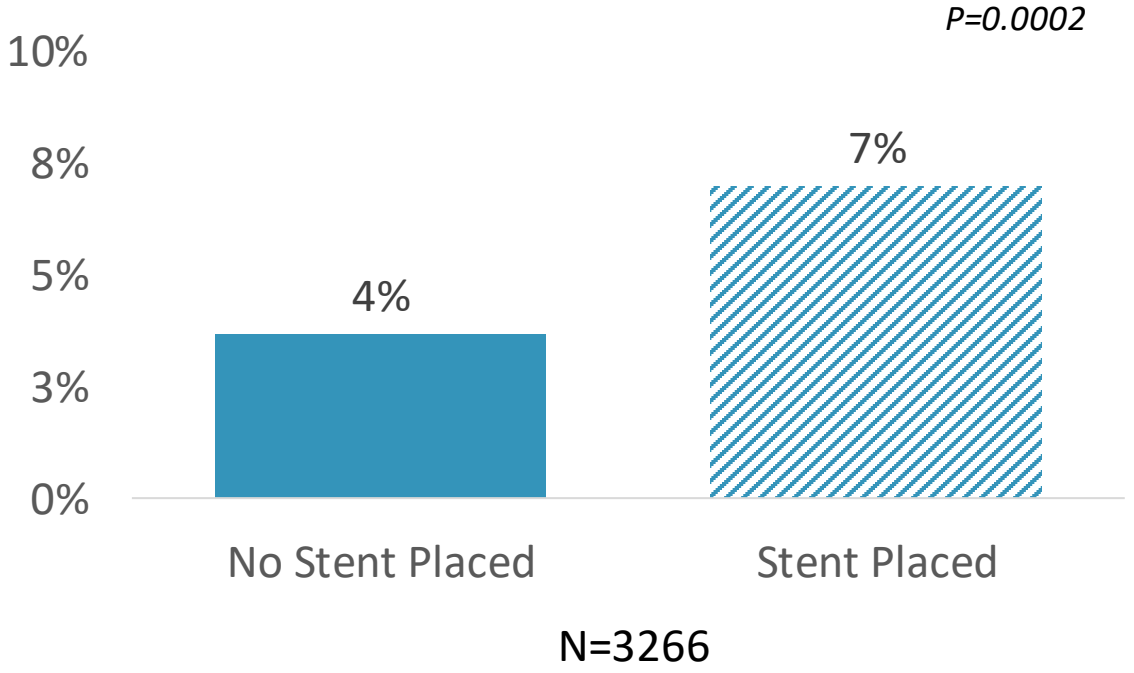
Collaborative-Wide Data

ED Visit Rates for Not Pre-Stented Population



N=5638

ED Visit Rates for Pre-Stented Population



N=3266

Stent Omission Appropriateness: Provider Placard

Presented at October 2020 MUSIC Webinar

Stent Omission Appropriateness Criteria

Patient	Criteria
Pre-stented Stone size: < 15mm	**Case Type:** Uncomplicated URS* **Stone Location:** Kidney or Ureter **UA/Urine Culture:** Negative **Residual Fragments:** Small or None **Access Sheath Use:** No **Dilation:** No
Not Pre-Stented Stone size: ≤ 10mm	

**Details of an uncomplicated URS as defined by the MUSIC ROCKS Stent Panel can be found in the table on the back of the placard.*

For additional information and details regarding other clinical scenarios in which stent omission is appropriate, please scan the QR code on the left or visit us at www.musicurology.com/rocks.

Blue Cross Blue Shield of Michigan

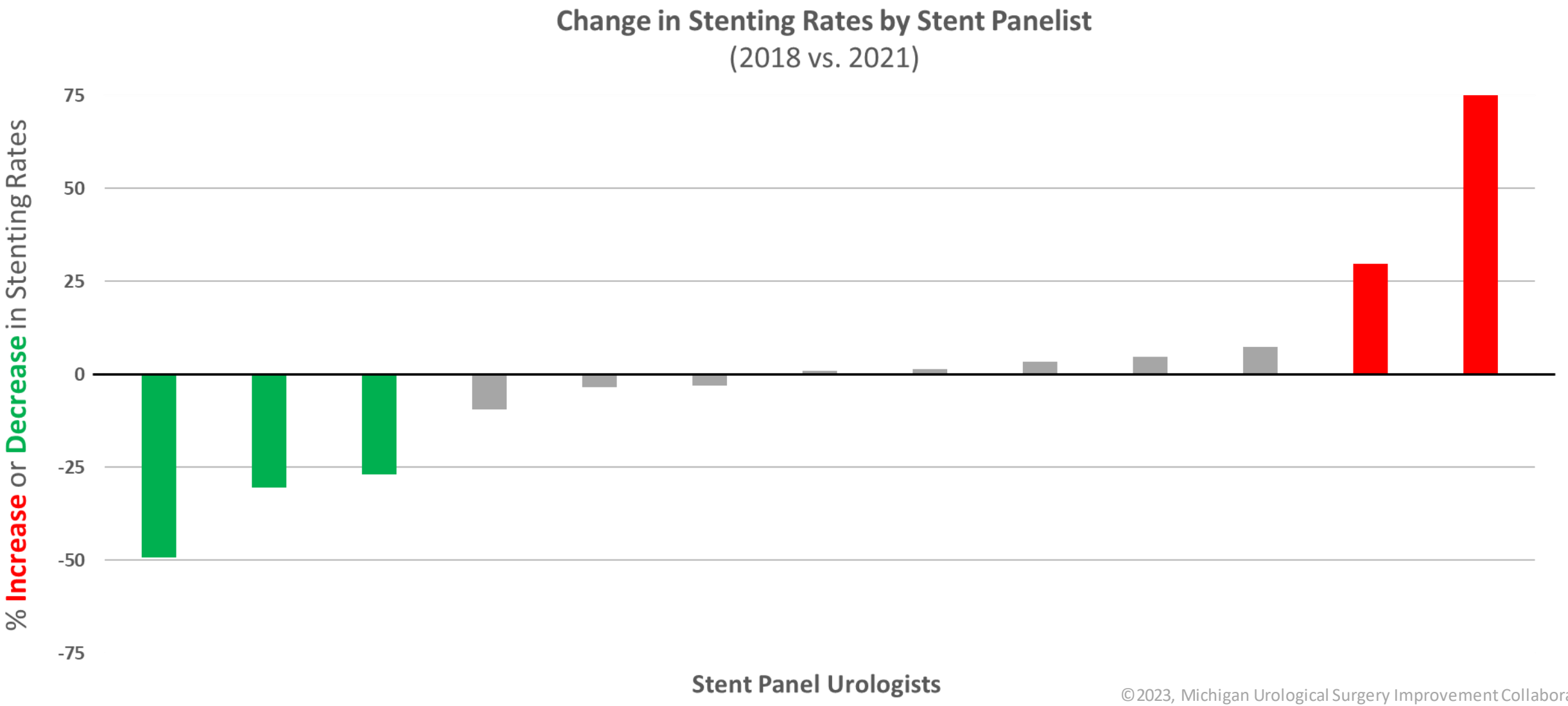
A nonprofit corporation and independent licensee of the Blue Cross and Blue Shield Association

Stent Omission Appropriateness Criteria

***Uncomplicated URS criteria as defined by the MUSIC ROCKS Stent Panel**

- Age ≥18 years
- American Society of Anesthesiologists (ASA) score <3
- Not immunocompromised
- No pregnancy
- No evidence of functional/anatomic solitary kidney
- No anatomic abnormalities (i.e. stricture, UPJ obstruction, horse shoe kidney)
- No urinary tract reconstruction
- No uncorrected bleeding diathesis
- No history of neurogenic bladder or incomplete bladder emptying
- No signs or symptoms of sepsis
- No history of sepsis associated with urinary tract infection
- No untreated positive urine culture
- No stones in multiple locations (i.e. both ureter and kidney)
- Stone size ≤15mm
- Operative time ≤60 minutes
- No balloon dilation of the ureter
- Unilateral procedure
- No plan for second look procedure
- Retrograde URS only
- No ureteral perforation or trauma

Change in Stenting Rates




EL SCOTT

Stent Omission: *Let's Keep it Simple*

Presented at June 2022 MUSIC Meeting

Stent Omission Appropriateness Criteria

Patient	Criteria
Pre-stented Stone size: < 15mm	**Case Type:** Uncomplicated URS* **Stone Location:** Kidney or Ureter **UA/Urine Culture:** Negative **Residual Fragments:** Small or None **Access Sheath Use:** No **Dilation:** No
Not Pre-Stented Stone size: ≤ 10mm	

**Details of an uncomplicated URS as defined by the MUSIC ROCKS Stent Panel can be found in the table on the back of the placard.*

For additional information and details regarding other clinical scenarios in which stent omission is appropriate, please scan the QR code on the left or visit us at www.musicurology.com/rocks.

Blue Cross Blue Shield of Michigan

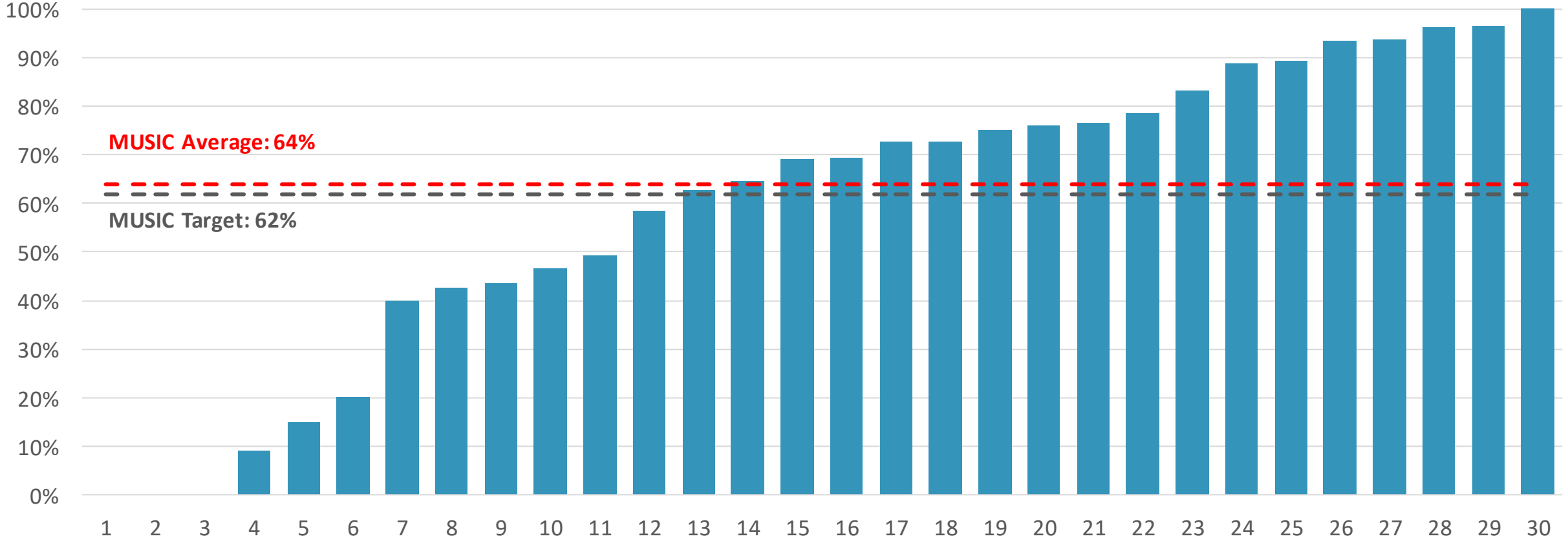
A nonprofit corporation and independent licensee of the Blue Cross and Blue Shield Association

Stent Omission Appropriateness Criteria

Patient/Criteria
Pre-stented

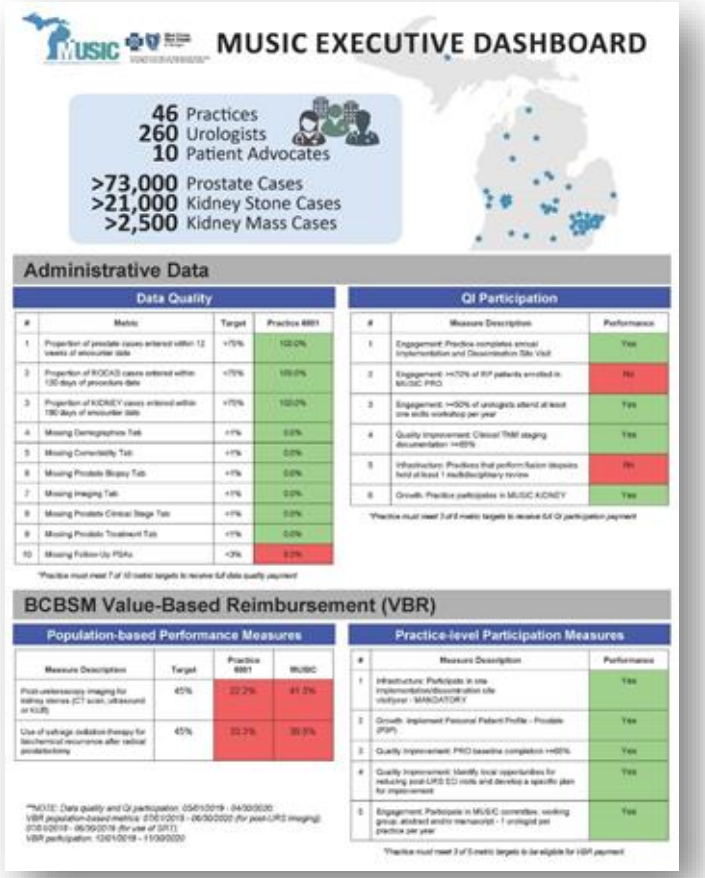
URS Stenting Rates *in Pre-Stented Patients* (VBR)

Rate of Stenting Following URS by Practice - Pre-stented Patients
(1/1/21 - 7/1/22)

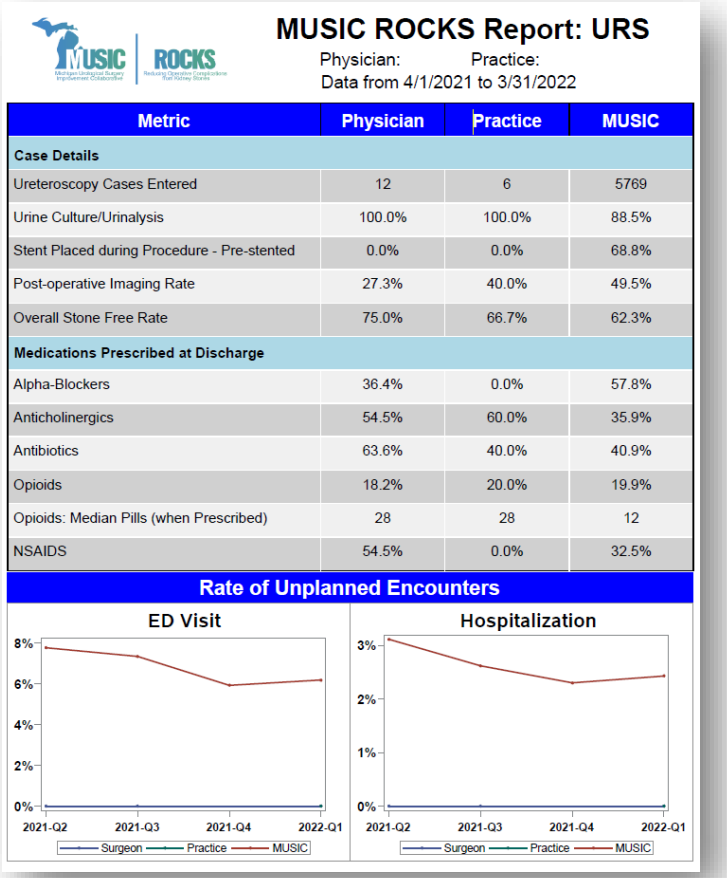


Current Methods of Performance Feedback

Practice Level Report



Physician Level Report



MUSIC ROCKS Report: URS

Physician: Practice:
Data from 4/1/2021 to 3/31/2022

Metric	Physician	Practice	MUSIC
Case Details			
Ureteroscopy Cases Entered	12	6	5769
Urine Culture/Urinalysis	100.0%	100.0%	88.5%
Stent Placed during Procedure - Pre-stented	0.0%	0.0%	68.8%
Post-operative Imaging Rate	27.3%	40.0%	49.5%
Overall Stone Free Rate	75.0%	66.7%	62.3%
Medications Prescribed at Discharge			
Alpha-Blockers	36.4%	0.0%	57.8%
Anticholinergics	54.5%	60.0%	35.9%
Antibiotics	63.6%	40.0%	40.9%
Opioids	18.2%	20.0%	19.9%
Opioids: Median Pills (when Prescribed)	28	28	12
NSAIDS	54.5%	0.0%	32.5%

Rate of Unplanned Encounters

- ✓ *Pre-op urine testing*
- ✓ *Stenting rate*
- ✓ *ED visit rate*
- ✓ *Hospitalization rate*
- ✓ *Opioid rate*
- ✓ *Anticholinergic rate*
- ✓ *NSAID rate*
- ✓ *Imaging rate*
- ✓ *Stone-free rate*

MUSIC ROCKS Report: URS

Physician: X Practice: X

Data from 7/1/2021 to 6/30/2022

Metric	Physician	Practice	MUSIC
Case Details			
Ureteroscopy Cases Entered	39	1659	5967
Urine Culture/Urinalysis	97.3%	88.9%	90.3%
Stent Placed during Procedure - Pre-stented	92.9%	58.3%	66.6%
Post-operative Imaging Rate	59.5%	41.8%	49.5%
Overall Stone Free Rate	78.6%	63.3%	62.5%
Medications Prescribed at Discharge			
Alpha-Blockers	48.6%	64.2%	57.3%
Anticholinergics	62.2%	43.2%	36.2%
Antibiotics	35.1%	48.0%	38.6%
Opioids	10.8%	16.0%	18.7%
Opioids: Median Pills (when Prescribed)	8	11	12
NSAIDS	35.1%	40.4%	35.6%

slido

Do you look at your report?

ⓘ Start presenting to display the poll results on this slide.

slido

Do you use the report to compare yourself to others?

ⓘ Start presenting to display the poll results on this slide.

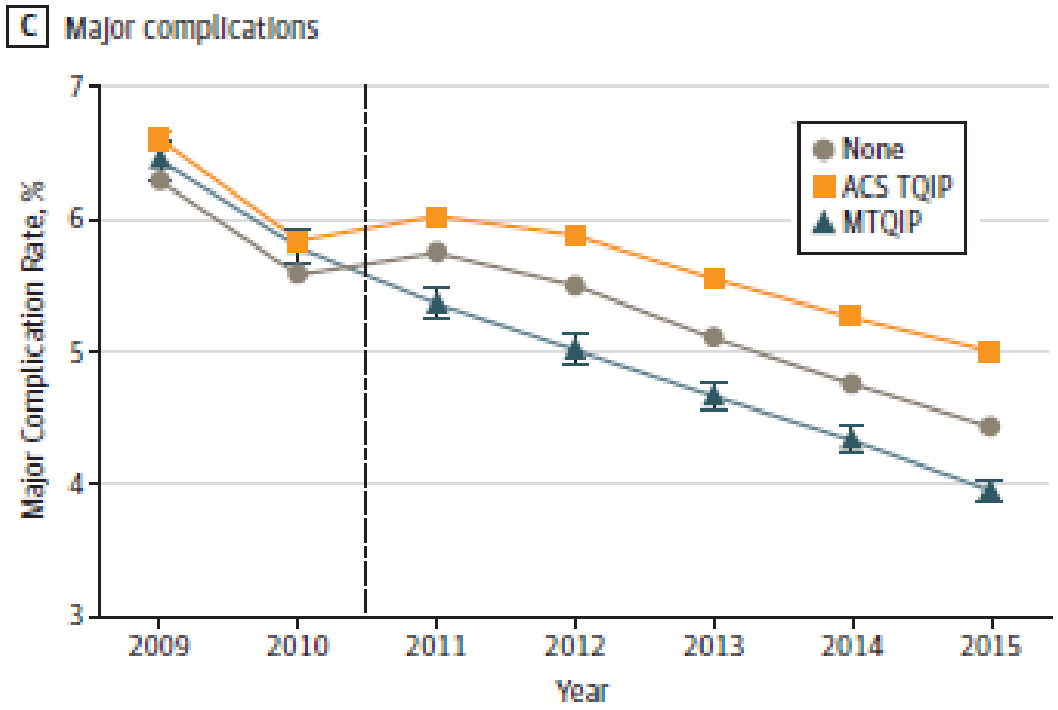
slido

Does this report provide the data needed to drive change in your stenting practice?

ⓘ Start presenting to display the poll results on this slide.

MTQIP Data

- MTQIP shows that feedback reporting and CQI participation are associated with improved outcomes for major complications.



None – Non-participating
American **C**ollege of **S**urgeons **T**rauma **Q**uality **I**mprovement **P**rogram – Benchmark reporting **ONLY**
Michigan **T**rauma **Q**uality **I**mprovement **P**rogram – Benchmark reporting **AND** Collaborative Quality Improvement

Hemmila, M. R., MD, Cain-Nielsen, A. H., MS, Jakubus, J. L., PA-C, MHSA, MS, Mikhail, J. N., RN, PhD, & Dimick, J. B., MD, MPH (2018). Association of Hospital Participation in a Regional Trauma Quality Improvement Collaborative With Patient Outcomes. *Journal of the American Medical Association*. https://doi.org/10.1001/jamasurg.2018.0985

Dr. Mark Hemmila – Guest Speaker

M·TQIP

Michigan Medicine
Program Director, MTQIP

The Michigan Trauma Quality Improvement Program

Data Presentation and Use

Mark R. Hemmila, MD

How hard is it?

Trauma > Hemorrhage

M·TQIP

How hard is it?

Trauma > Hemorrhage > Stop the bleed

M·TQIP

How hard is it?

Blood Products

PRBCs

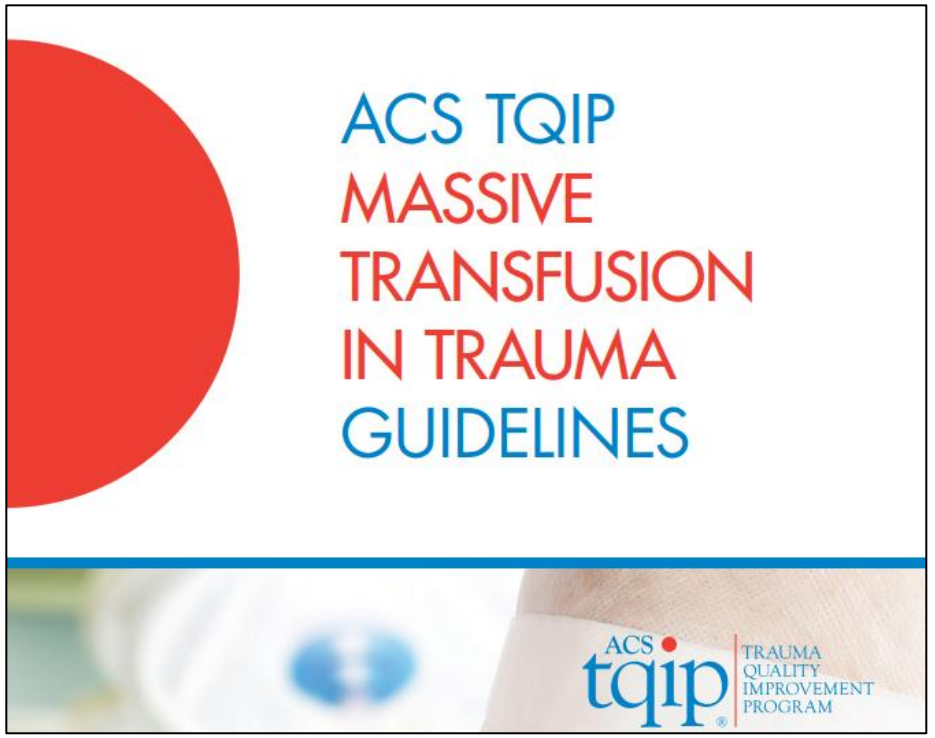
Plasma

Platelets

M·TQIP

The ratio of Blood Products Matters

- Literature
  - 1:1:1 Blood, Plasma, Platelets
  - Better hemostasis
  - Increased 24 hr survival
  - Decreased overall mortality +/-
- Accepted practice
  - 1:1 or 2:1 Blood to Plasma ratio
- MTQIP Hospital CQI Metric
  - 2014



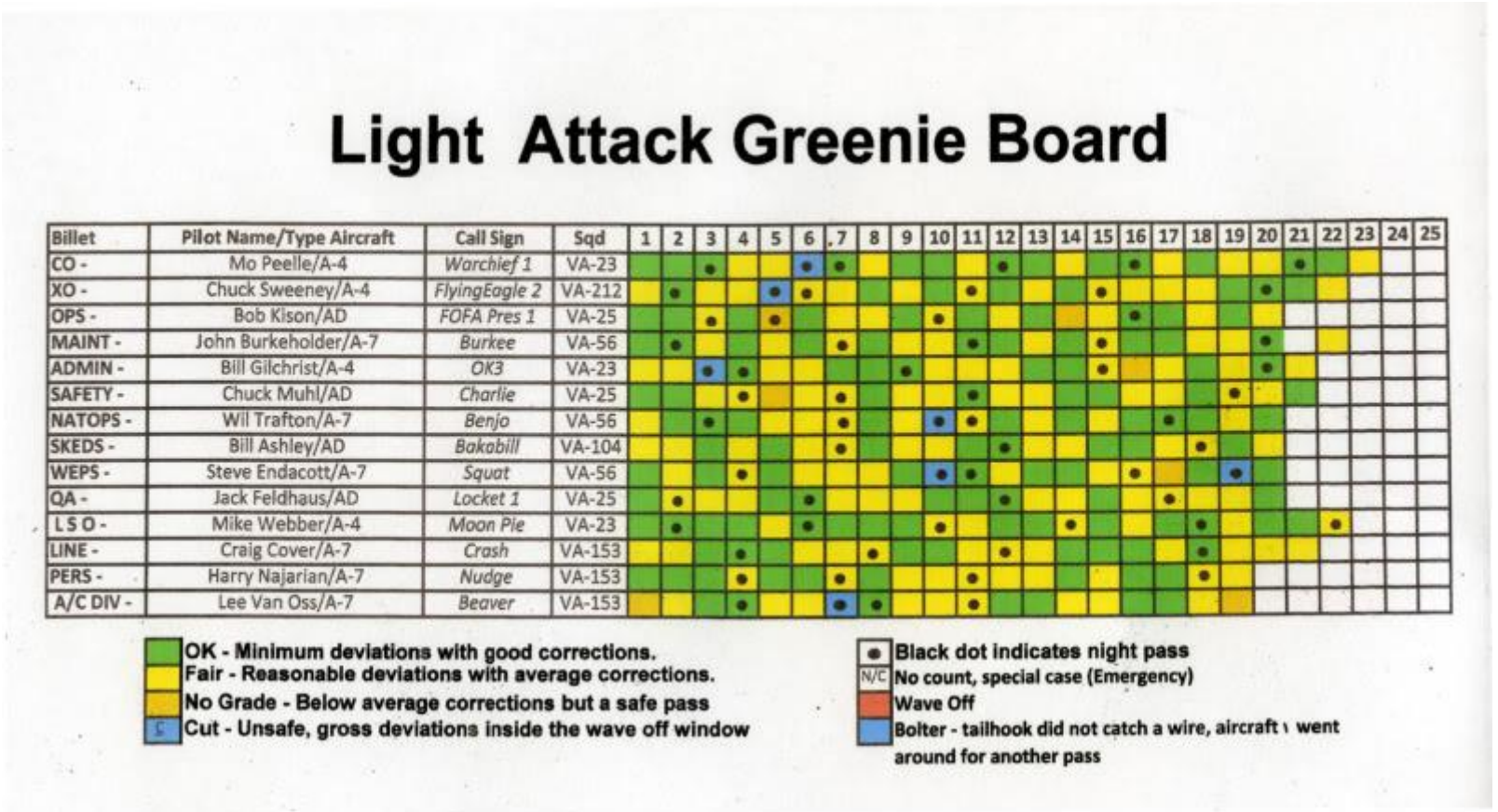
M·TQIP

Scoring of Resuscitation

Scoring of Resuscitation

- "OK Underline" – a perfect pass, generally under unfavorable circumstances. Naval aviators often have hundreds of carrier landings without ever receiving this grade. Worth 5 points.
- "OK" – a pass with only very minor deviations from centerline, glideslope and angle of attack. Worth 4 points.
- "Fair" – a pass with one or more safe deviations and appropriate corrections. Worth 3 points.
- "Bolter" - a safe pass where the hook is down and the aircraft does not stop. Worth 2.5 point, but counts against pilot/squadron/wing "boarding rate".
- "No Grade" – a pass with gross (but still safe) deviations or inappropriate corrections. Failure to respond to LSO calls will often result in this grade. Worth 2 points.
- "Technique Waveoff" – a pass with deviations from centerline, glideslope and/or angle of attack that are unsafe and need to be aborted. Worth 1 point.
- "Cut Pass" – an unsafe pass with unacceptable deviations, typically after a wave off is possible. Worth zero points.
- "Foul Deck Waveoff" – a pass that was aborted due to the landing area being “fouled”. No points are assigned, and the pass is not counted toward the pilots landing grade average

Scoring of Resuscitation



Light Attack Greenie Board

Billet	Pilot Name/Type Aircraft	Call Sign	Sqd	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CO -	Mo Peelle/A-4	*Warchief 1*	VA-23			●			●	●					●				●					●				
XO -	Chuck Sweeney/A-4	*FlyingEagle 2*	VA-212		●			●	●					●				●					●					
OPS -	Bob Kison/AD	*FOFA Pres 1*	VA-25			●		●					●						●									
MAINT -	John Burkeholder/A-7	*Burkee*	VA-56		●					●				●				●					●					
ADMIN -	Bill Gilchrist/A-4	*OK3*	VA-23			●	●					●						●					●					
SAFETY -	Chuck Muhl/AD	*Charlie*	VA-25				●			●				●								●						
NATOPS -	Wil Trafton/A-7	*Benjo*	VA-56			●				●			●	●						●								
SKEDS -	Bill Ashley/AD	*Bakabill*	VA-104							●					●						●							
WEPS -	Steve Endacott/A-7	*Squat*	VA-56				●						●	●					●			●						
QA -	Jack Feldhaus/AD	*Locket 1*	VA-25		●				●						●					●								
LSO -	Mike Webber/A-4	*Moon Pie*	VA-23		●				●				●				●				●				●			
LINE -	Craig Cover/A-7	*Crash*	VA-153				●				●				●						●							
PERS -	Harry Najarian/A-7	*Nudge*	VA-153				●			●				●							●							
A/C DIV -	Lee Van Oss/A-7	*Beaver*	VA-153				●			●	●			●														

OK - Minimum deviations with good corrections.
Fair - Reasonable deviations with average corrections.
No Grade - Below average corrections but a safe pass
Cut - Unsafe, gross deviations inside the wave off window

● Black dot indicates night pass
N/C No count, special case (Emergency)
Wave Off
Bolter - tailhook did not catch a wire, aircraft went around for another pass

Michigan Trauma Quality Improvement Program (MTQIP) 2018 Performance Index January 1, 2018 to December 31, 2018				
Measure	**Weight**	**Measure Description**	**Points**	
#1	10	**Data Submission (Partial/Incomplete Submissions No Points)**		PARTICIPATION (30%)
		On time and complete 3 of 3 times	10	
		On time and complete 2 of 3 times	5	
		On time and complete 1 of 3 times	0	
#2	10	**Meeting Participation All Disciplines *Surgeon represents 1 hospital only**	0-10	
		Surgeon, and (TPM or MCR) Participate in 3 of 3 Collaborative meetings (9 pts)		
		Surgeon, and (TPM or MCR) Participate in 2 of 3 Collaborative meetings (6 pts)		
		Surgeon, and (TPM or MCR) Participate in 1 of 3 Collaborative meetings (3 pts)		
		Surgeon, and (TPM or MCR) Participate in 0 of 3 Collaborative meetings (0 pts)		
		Registrar, and/or MCR Participate in the Data Abstractor Meeting (1 pt)		
#3	10	**Data Accuracy** / **Error Rate**		
		5 Star Validation / 0-4.0%	10	
		4 Star Validation / 4.1-5.0%	8	
		3 Star Validation / 5.1-6.0%	5	
		2 Star Validation / 6.1-7.0%	3	
		1 Star Validation / >7.0%	0	
#4	10	**Venous Thromboembolism (VTE) Prophylaxis Initiated Within 48 Hours of Arrival in Trauma Service Admits with > 2 Day Length of Stay (18 Mo's: 1/1/17-6/30/18)**		PERFORMANCE (70%)
		≥ 55%	10	
		≥ 50%	8	
		≥ 40%	5	
		< 40%	0	
#5	10	**Low Molecular Weight Heparin (LMWH) Venous Thromboembolism (VTE) Prophylaxis Use in Trauma Service Admits (18 Mo's: 1/1/17-6/30/18)**		
		≥ 50%	10	
		37-49%	7	
		25-36%	5	
		20-24%	3	
		< 20%	0	
#6	10	**Red Blood Cell to Plasma Ratio (Weighted Mean Points) of Patients Transfused ≥5 Units in 1st 4 Hours (18 Mo's: 1/1/17-6/30/18) (See calculation info on page 2)**	0-10	
#7	10	**Serious Complication Rate-Trauma Service Admits (3 years: 7/1/15-6/30/18)**		
		Z-score: < -1 (major improvement)	10	
		Z-score: -1 to 1 or serious complications low-outlier (average or better rate)	7	
		Z-score: > 1 (rates of serious complications increased)	5	
#8	10	**Mortality Rate-Trauma Service Admits (3 years: 7/1/15-6/30/18)**		
		Z-score: < -1 (major improvement)	10	
		Z-score: -1 to 1 or mortality low-outlier (average or better rate)	7	
		Z-score: > 1 (rates of mortality increased)	5	
#9	10	**Open Fracture Antibiotic Usage (12 Mo's: 7/1/17-6/30/18)**		
		≥ 90% patients (Antibiotic type, date, time recorded)	10	
		≥ 80% patients (Antibiotic type, date, time recorded)	7	
		≥ 70% patients (Antibiotic type, date, time recorded)	5	
		< 70% patients (Antibiotic type, date, time recorded)	0	
#10	10	**Head CT Scan performed in ED on patient taking anticoagulation medication with head injury (12 Mo's: 7/1/17-6/30/18)**		
		≥ 90% patients (Head CT scan in ED with date and time recorded)	10	
		≥ 80% patients (Head CT scan in ED with date and time recorded)	7	
		≥ 70% patients (Head CT scan in ED with date and time recorded)	5	
		< 70% patients (Head CT scan in ED with date and time recorded)	0	
		Total (Max Points) =	100	

Measure 6: Red Blood Cell to Plasma Ratio

1) Assign (weight) to each individual patient's 4 hr PRBC/FPP ratio to correct tier/points using chart below.

PRBC to Plasma Ratio	Tier	Points
≤ 1.5	1	10
1.6 – 2.0	2	10
2.1 – 2.5	3	5
> 2.5	4	0

MTQIP Blood Drill Down

3/1/14 - 9/30/15

M·TQIP

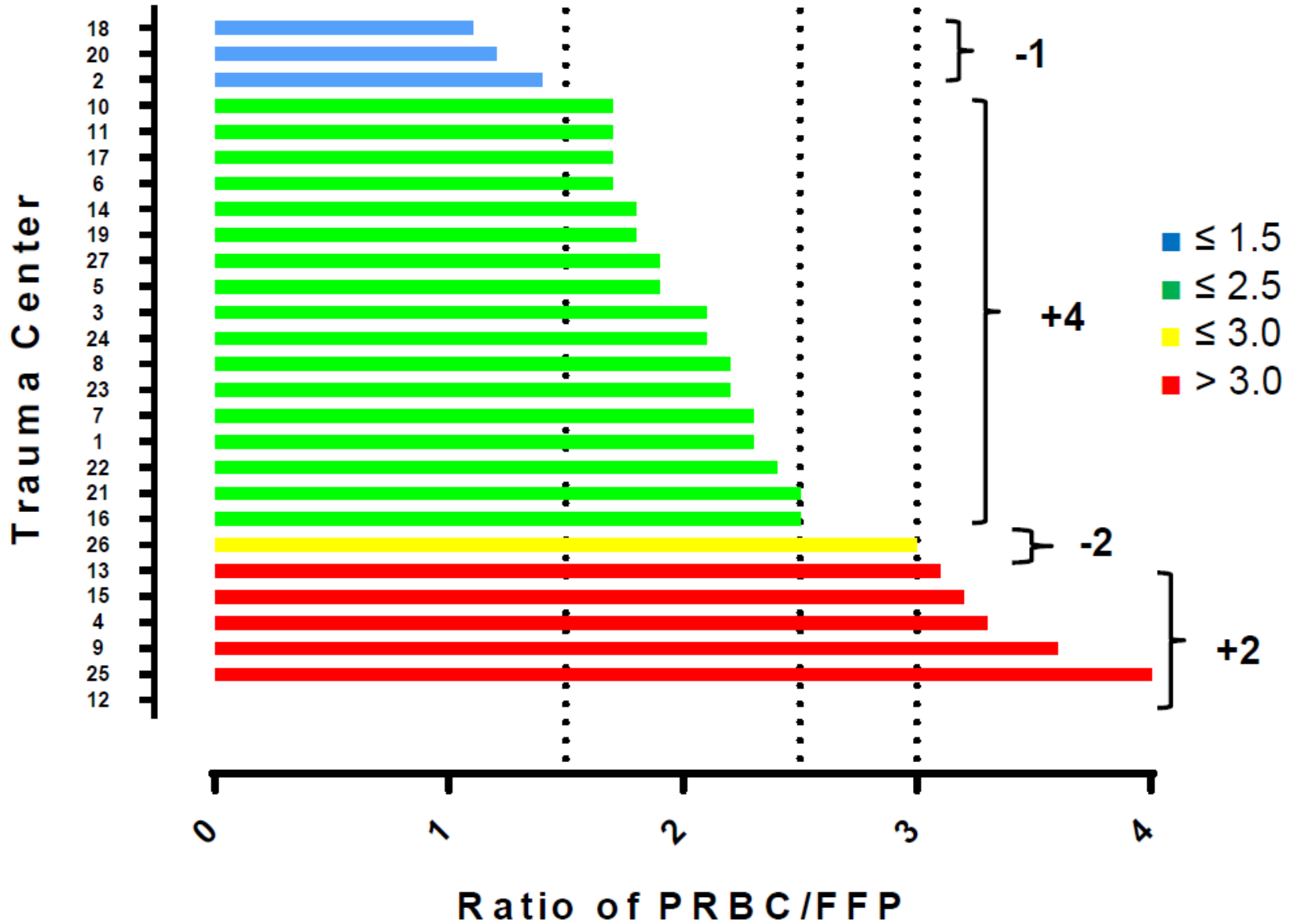
Trauma #	Age	ISS	PRBC 4hr	FFP 4 hr	PLT 4 hr	Cryo 4 hr	IVF 4 hr	4 hr PRBC/FFP Ratio	24 hr PRBC/FFP Ratio	Points	TXA	Mortality	Surgeon
337217	55	41	18	19	20	1	0	0.9	0.9	10	0	1	Machado-Aranda, David
337056	40	8	7	7	10	0	2	1.0	1.0	10	0	0	Cherry-Bukowiec, Jill
337066	18	41	14	14	4	0	3	1.0	1.0	10	0	0	To, Kathleen
337053	36	34	46	44	45	5	2	1.0	1.0	10	0	1	Cherry-Bukowiec, Jill
336658	26	48	7	6	0	0	0	1.2	1.2	10	0	0	Hemmila, Mark
337006	30	54	7	6	0	0	0	1.2	1.2	10	0	1	Hemmila, Mark
336731	63	27	15	12	0	0	0	1.3	1.3	10	0	1	Park, Pauline
337153	54	33	10	8	0	0	4	1.3	1.3	10	0	0	To, Kathleen
336568	50	75	6	4	5	1	0	1.5	1.5	10	0	1	Alam
336723	50	29	6	4	0	0	3	1.5	1.5	10	0	0	Hemmila, Mark
337072	35	50	12	8	15	10	2	1.5	1.6	10	0	1	Cherry-Bukowiec, Jill
337130	61	14	9	6	4	1	8	1.5	1.5	10	1	0	Machado-Aranda, David
337184	53	9	5	3	0	0	3	1.7	1.7	10	0	0	Cherry-Bukowiec, Jill
338100	19	66	37	21	30	0	12	1.8	1.9	10	1	1	Delano, Matthew
336614	63	30	43	24	15	0	1	1.8	1.8	10	1	1	Hemmila, Mark
336461	23	27	14	7	15	0	0	2.0	2.0	10	1	1	Raghavendran,
337885	28	5	9	4	0	0	2	2.3	2.3	5	0	1	Machado-Aranda, David
336991	24	34	5	2	5	0	0	2.5	2.5	5	0	1	To, Kathleen
337680	65	48	5	2	5	0	1	2.5	2.5	5	0	0	Wang, Stewart
338051	61	45	5	2	0	0	5	2.5	3.0	5	0	1	Napolitano, Lena
337483	72	16	8	3	0	0	6	2.7	3.0	0	0	0	Park, Pauline
336643	26	41	6	2	0	3	0	3.0	3.0	0	0	0	Raghavendran,
336736	66	36	9	3	1	0	0	3.0	3.0	0	0	1	Cherry-Bukowi
337624	50	20	7	2	0	0	1	3.5	3.5	0	0	1	Alam, Hasan
337790	51	29	8	2	5	0	6	4.0	2.5	0	0	0	Cherry-Bukowiec, Jill
336403	23	22	5	0	0	0	0			0	0	1	Alam

How hard is it?

- Grand Rapids Meeting
  - 2 years into project
  - Famous surgeon, prior research on subject, lagging
  - Presenting data
- ED Blood Products then MTP coolers

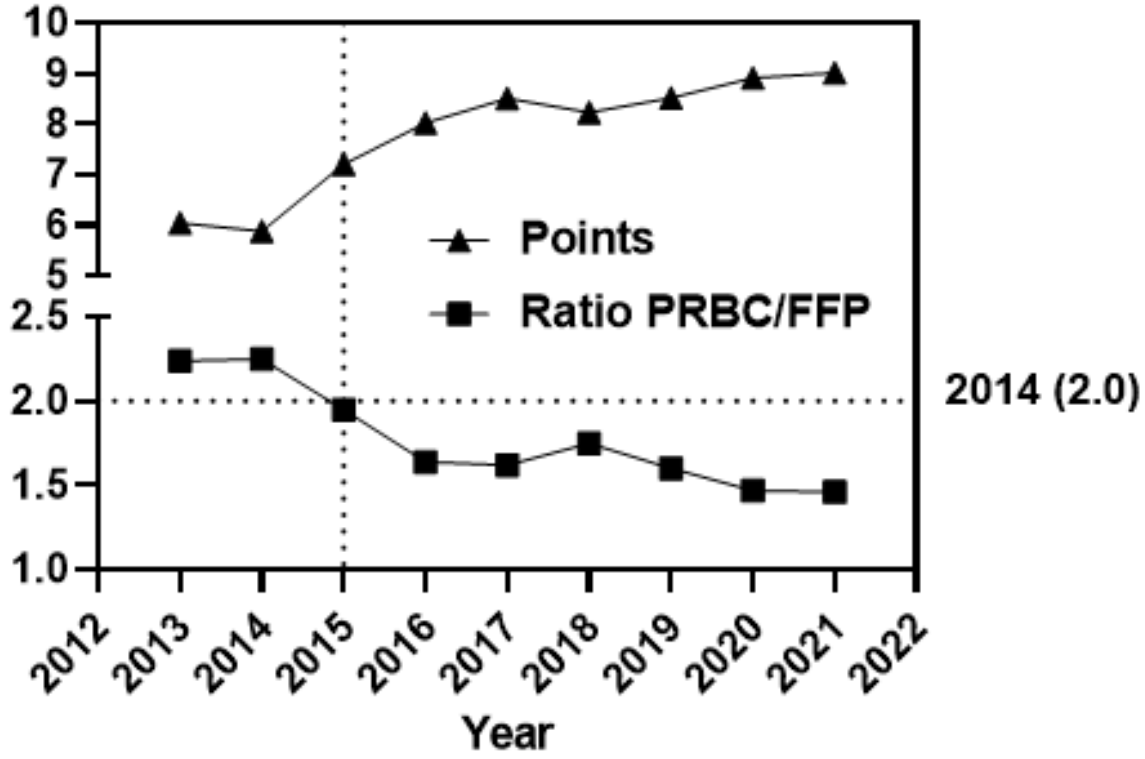
M·TQIP

Blood Product Ratio in first 4 hrs if ≥ 4 uPRBCs

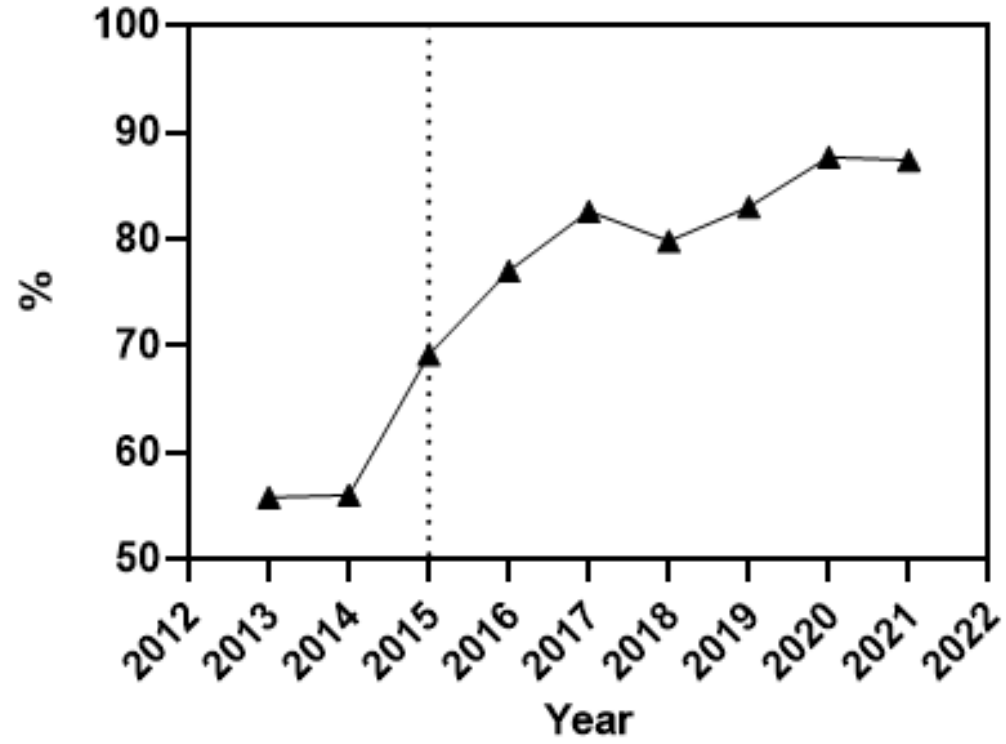


7/1/13 to 12/31/14

Blood Product Ratio in first 4 hrs

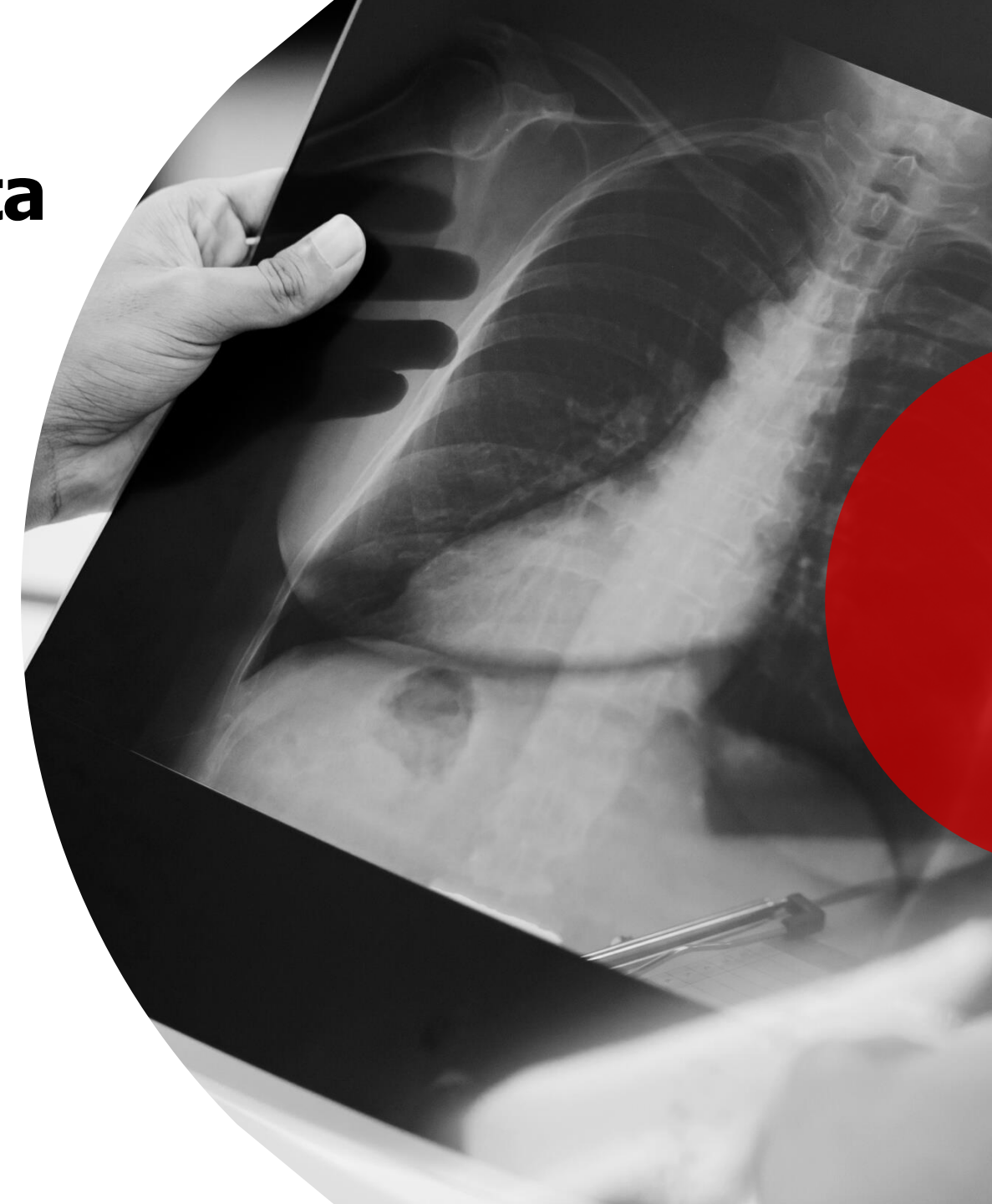


% Patients with Blood Product Ratio ≤ 2.0 in first 4 hrs



What do people want in data reports?

- How do I look
- Timely
- Easy to read

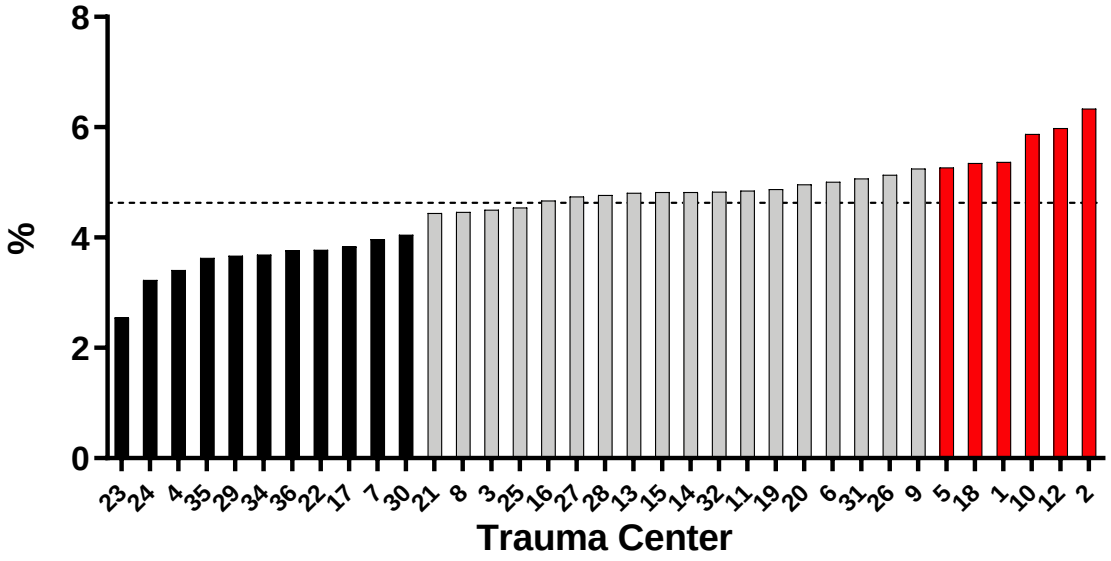


How do I look

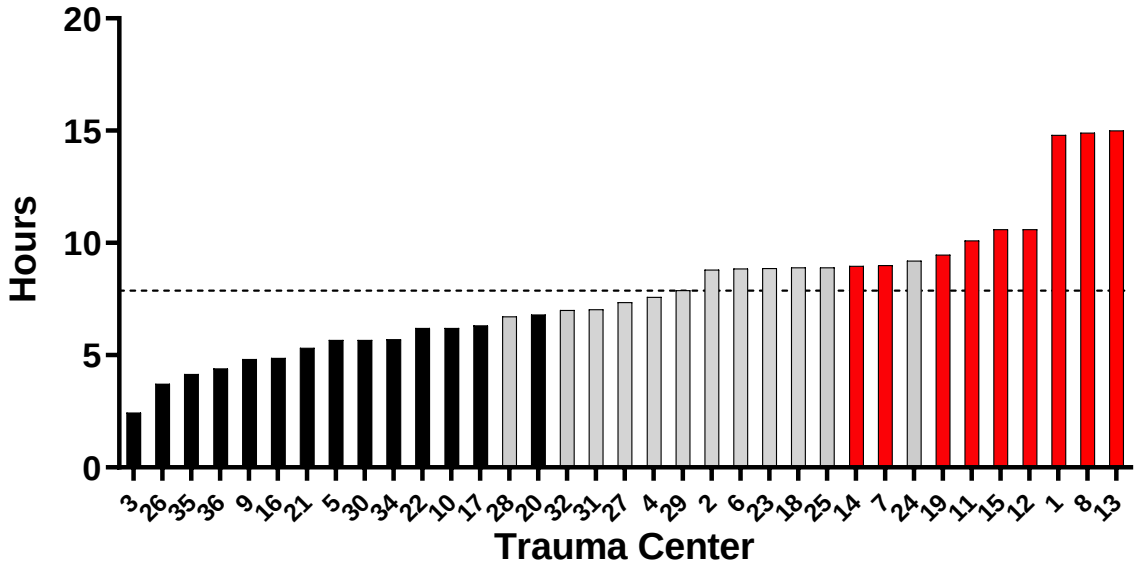
- Risk-adjusted means
- Unblinding at meetings
- Graphical
- Cover CQI Hospital Scoring Index at every meeting
- Z-Score

M·TQIP

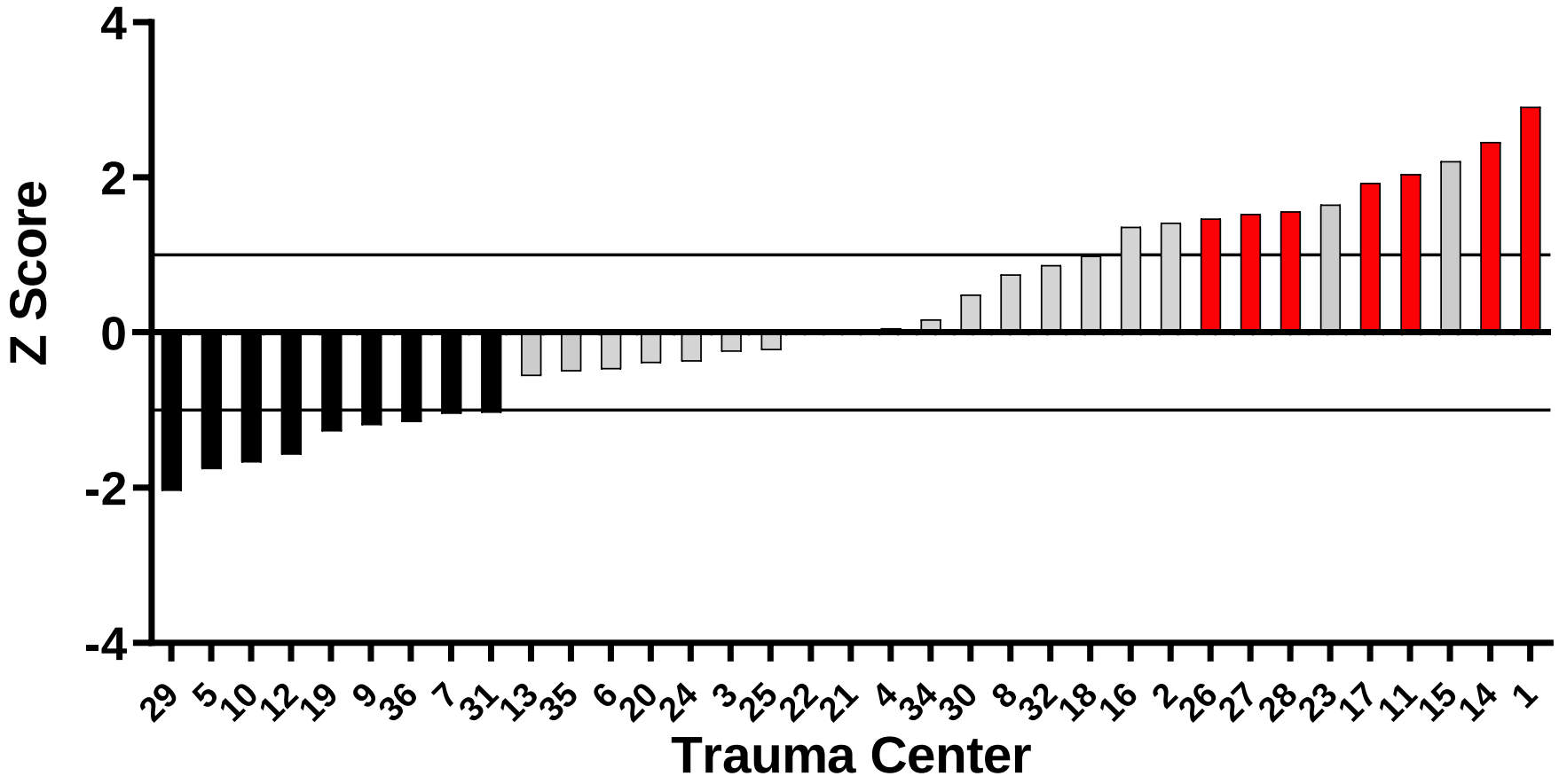
Mortality
Cohort 1 - MTQIP All



Mean ED LOS
Cohort 2 - Admit to Trauma



Metric 7 - Z Score - Serious Complication Rate
Cohort 2 - Admit to Trauma
7/1/20 - 1/31/23



Timely

- Consider statistical power
  - Time interval
  - Metric n in cohort (common vs. uncommon)
- Use recent data for reports
- Web-site (ArborMetrix)
  - Every 2 months
  - We do have a data lag problem

M·TQIP

Easy to read

- The audience is not a group of biostatisticians
- Use colors to denote outlier status
  - Red = high outlier performance
  - Gray = average performance
  - Black = low outlier performance
- Summary dashboards
- Lists
  - Provided to participants (CQI Index measures)
  - Drill down to patient level (ArborMetrix)

M·TQIP

MTQIP Dashboard
UM

M·TQIP

Outcome	Center	MTQIP	95% CI
Abdominal Compartment Syndrome	0.05	0.03	
Abdominal Fascial Left Open	0.57	0.6	
Acute Kidney Injury	0.59	0.45	
Acute Renal Insufficiency	0.15	0.14	
Acute Respiratory Distress Syndrome	0.64	0.44	
Alcohol Withdrawal Syndrome	2.33	1.42	
Any Complication (Grade 1, 2, or 3)	18	11.1	
Any Complication (Grade 1, 2, or 3) or Morta	20.3	13.9	
Any DVT	1.48	0.87	
C. Diff Colitis	0.86	0.29	
Cardiac Arrest with CPR	1.34	1.27	
Cardiac/Stroke	1.6	1.84	
Catheter-Associated Urinary Tract Infection	0.58	0.23	
Central Line Associated Blood Stream Infect	0.09	0.04	
Dead	4.51	4.55	
Deep SSI	0.09	0.17	
Delirium	11.4	3.84	
Enterocutaneous Fistula	0.01	0.04	
Extremity Compartment Syndrome	0.18	0.15	
Failure to Rescue	13.8	16.6	
Grade 1	13.5	5.66	
Grade 2	8.15	5.63	
Lower Extremity DVT	1.49	0.87	
Myocardial Infarction	0.15	0.31	
Organ/Space SSI	0.19	0.19	
Osteomyelitis	0.06	0.03	
Pneumonia	3.16	1.72	
Pressure Ulcer	1.28	1.05	
Pulmonary Embolism	0.55	0.39	
Sepsis	0.42	0.58	
Serious Complication (Grade 2 or 3)	9.69	7.47	
Serious Complication (Grade 2 or 3) or Morta	12.2	10.3	
Stroke/CVA	0.16	0.32	
Superficial SSI	0.1	0.17	
Unplanned Admission to ICU	3.68	1.91	
Unplanned Intubation	1.53	1.38	
Unplanned Return to OR	0.63	1.21	
VTE	1.84	1.17	
Ventilator Associated Pneumonia	1.91	1.16	
Wound Disruption	0.04	0.1	

Mortality	Center	MTQIP	95% CI
AIS Abdomen >=3	10.2	9.3	
AIS Chest >=3	7.5	7.7	
AIS External >=3	32.0	30.8	
AIS Extremity >=3	4.1	4.4	
AIS Face >=3	0.3	15.7	
AIS Head/Neck >=3	11.1	12.3	
Age 16-24	3.7	4.9	
Age 25-44	3.9	4.3	
Age 45-64	3.5	4.0	
Age 65-84	4.5	4.8	
Age >84	7.1	5.4	
Arrived from: Other	3.2	1.6	
Arrived from: Refer Hospital	5.1	4.2	
Arrived from: Scene	4.8	5.1	
Cohort 2 (Admit to Trauma Service)	4.6	4.5	
Cohort 3 (Blunt Multi-System)	16.0	17.0	
Cohort 4 (Blunt Single-System)	3.8	4.0	
Cohort 5 (Penetrating)	11.0	13.2	
Cohort 7 (Benchmark)	6.5	6.9	
Cohort 8 (Isolated Hip Fracture)	1.1	1.7	
Dead	4.5	4.6	
Dead (with TBI)	49.0	57.1	
Dead or Hospice	5.9	6.1	
Hospice	1.4	1.5	
ISS 16-24	4.6	5.5	
ISS 25-35	25.7	25.6	
ISS 5-15	1.4	1.4	
ISS >35	37.9	44.6	
Mechanism: Blunt	3.6	4.0	
Mechanism: Fall	4.4	3.7	
Mechanism: Firearm	14.7	17.0	
Mechanism: MVC	3.6	4.1	
Mechanism: Penetrating	11.0	13.2	
Motor GCS: 1	41.8	55.4	
Motor GCS: 2-5	14.9	15.0	
Motor GCS: 6	2.0	1.6	
Race: Non-white	4.1	5.3	
Race: White	4.3	4.3	
Total GCS: 14-15	1.9	1.5	
Total GCS: 3-8	34.7	45.3	
Total GCS: 9-13	9.5	9.6	

Isolated Hip Fracture Dashboard
UM

M·TQIP

Admit Service	Center	MTQIP	n
Trauma	0.0%	41.7%	0
Orthopedics	91.0%	24.6%	61
Others	9.0%	33.7%	6

Processes of Care	Center	MTQIP	P Value	95% CI
Heparin or LMWH VTE Prophylaxis <= 48 Hours	54.0%	64.4%	0.00	
Average Time to OR (hrs)	21.9	26.8		
Time to OR > 48 Hours	3.0%	8.3%		

Complications	Center	MTQIP	P Value	95% CI
Serious Complications	6.8%	6.0%	0.49	
Any Complications	14.2%	10.6%	0.01	
Failure to Rescue	17.0%	17.6%	0.88	
Venous Thromboembolism	1.3%	0.7%	0.01	

Top Collaborative Complications	Center	MTQIP	P Value	95% CI
Unplanned Admission to ICU	3.2%	2.1%	0.29	
Unplanned Intubation	1.0%	0.6%	0.13	
Myocardial Infarction	0.8%	0.6%	0.68	
Pneumonia	0.9%	0.3%	0.01	
Catheter Associated Urinary Tract Infection	0.9%	0.2%	0.00	

Resource Utilization	Center	MTQIP	P Value	95% CI
Length of Stay (days)	6.0	5.8	0.57	

Mortality	Center	MTQIP	P Value	95% CI
Isolated Hip Fracture Mortality	2.2%	1.9%	0.35	
Mortality or Hospice	4.6%	4.5%	0.84	

Disposition	Center	MTQIP	n
Home	28.4%	21.9%	19
SNF	70.1%	29.1%	47
Rehab	0.0%	41.9%	0
Other	1.5%	4.0%	1

Key
Low Outlier
Average
High Outlier

Criteria

Cohort 8 (Isolated Hip Fracture)
Exclude DOA
Age >= 65
eCode = Fall
AIS 05, ICD-9, or ICD-10 codes = proximal femur, femoral head, femoral neck, trochanteric or subtrochanteric
All other injuries must be in AIS external body region (i.e., bruise, abrasion or laceration)
11/1/20 - 1/31/23

MTQIP Open Fracture Drill Down

Interval 7/1/22 - 12/31/22

Target <= 90 min

M·TQIP

Center	Trauma #	MRN	Age	Activation Status	ISS	Mortality	First Antibiotic type	Second Antibiotic Type	Missing Data Alert	Arrival to Antibiotic Time (Min)	Surgeon Name
UM	46939	40011602	71	Partial	22	0	Cephalosporin	None		466	Machado-Aranda, David
UM	47064	305248	59	No Trauma Activ	10	0	Cephalosporin	None		88	n/a
UM	46868	11051923	73	Partial	29	0	Cephalosporin	None		52	Cherry-Bukowiec, Jill
UM	47346	101164255	21	Partial	9	0	Cephalosporin	None		52	Scott, John W
UM	47339	29567529	68	Partial	14	0	Cephalosporin	None		42	Scott, John W
UM	47672	101719951	31	Partial	10	0	Cephalosporin	None		20	Jean, Raymond
UM	46903	38819203	81	Full	10	0	Cephalosporin	None		16	Cherry-Bukowiec, Jill
UM	47192	20255705	58	Partial	17	0	Cephalosporin	None		16	Aubry, Staci

Motivation Levers

Reports

Unmasking

A- B+

C

Hospital Index

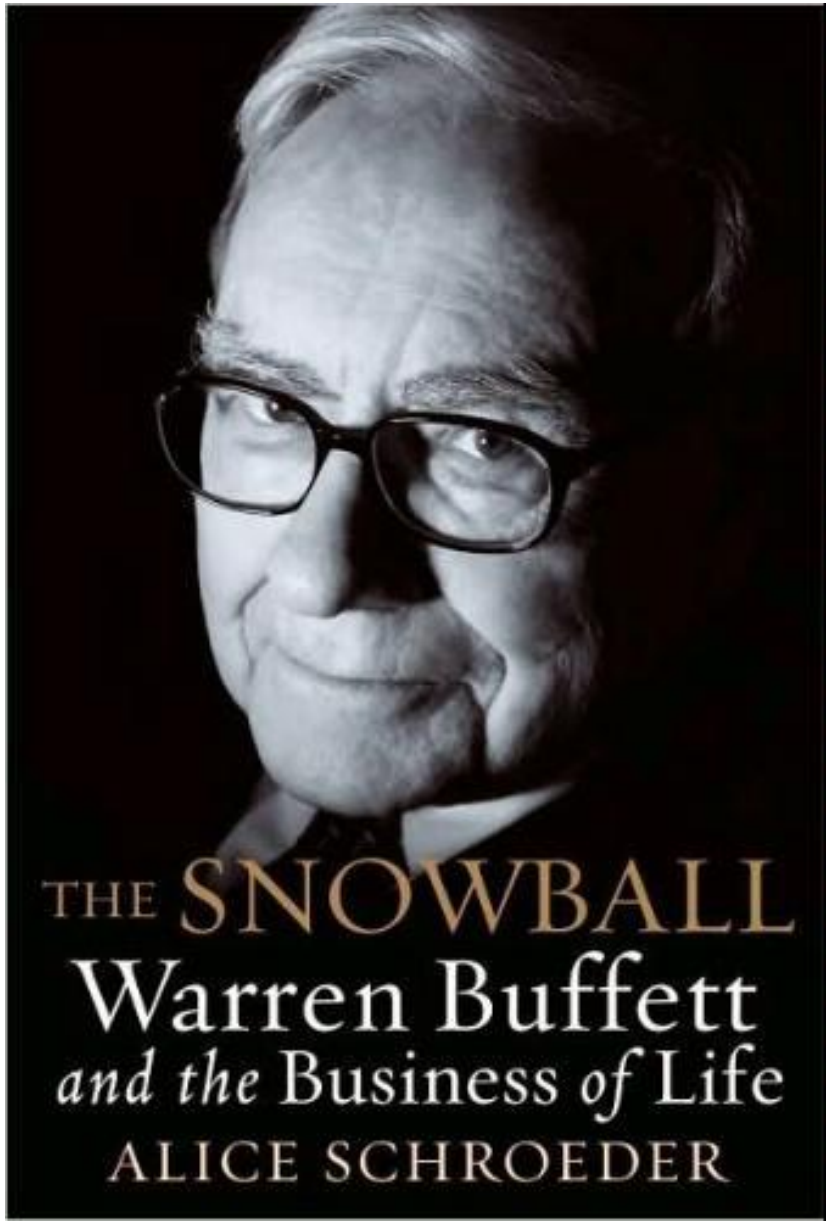
M·TQIP

Credibility

Data Definitions

Data Validation

M·TQIP



"Life is like a snowball. The important thing is finding wet snow and a really long hill."

BERKSHIRE HATHAWAY INC.

2022
ANNUAL REPORT

BERKSHIRE HATHAWAY INC.

2022
ANNUAL REPORT

M·TQIP

Individual Site Summary Report

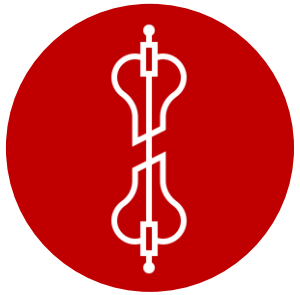
November 1, 2020 through January 31, 2023

Issue May 17, 2023

Michigan Trauma Quality Improvement Program

Dedicated to improving the quality of care delivered to trauma patients

M·TQIP

VTE Prophylaxis Administration	Timely Hip Fracture Repair	Massive Transfusion Resuscitation	Traumatic Brain Injury	Open Fracture Antibiotic
				
23% → 59% 2012 2021 ↑ 8.6K patients/yr	79% → 93% 2016 2021 ↑ 543 patients/yr	54% → 88% 2013 2021 ↑ 118 patients/yr	65% → 86% 2016 2021 ↑ 107 patients/yr	77% → 90% 2017 2021 ↑ 100 patients/yr
Getting trauma patients the right drug at the right time	Getting elderly patients to the operating room to get the right care	Getting patients with bleeding the right blood products	Getting patients with traumatic injury the right imaging	Getting patients with an open fracture the right antibiotic

Michigan Trauma Quality Improvement Program

Dedicated to improving the quality of care delivered to trauma patients

M·TQIP

Mortality	Major Complications	Sepsis	Venous Thromboembolism	Hospital Length of Stay
				
4.4% → 3.7% 2011 2021 ↓ 209 patients/yr	8.7% → 6.3% 2011 2021 ↓ 730 patients/yr	0.9% → 0.4% 2011 2021 ↓ 147 patients/yr	1.7% → 1.1% 2011 2021 ↓ 188 patients/yr	6.3 → 4.8 days 2011 2021 ↓ 45K days/yr
Decreasing trauma-related deaths	Decreasing trauma-related morbidity	Decreasing critical illness	Decreasing life-threatening blood clots	Decreasing time away from family

Can we Improve our Provider feedback Reports?

ROCKS Stenting Dashboard

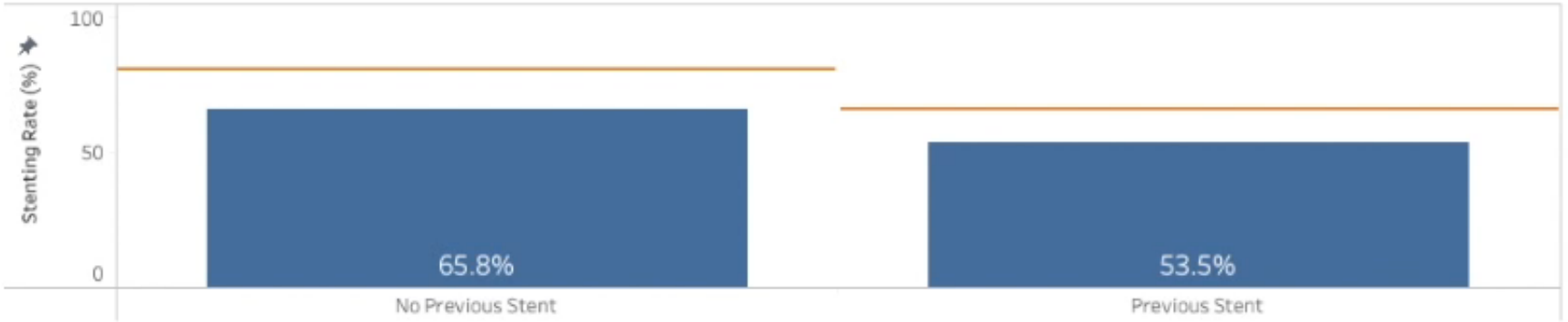
MUSIC Rate Practice Rate Provider Rate

6/1/2016 — 11/28/2022

Metric: Stenting Rate

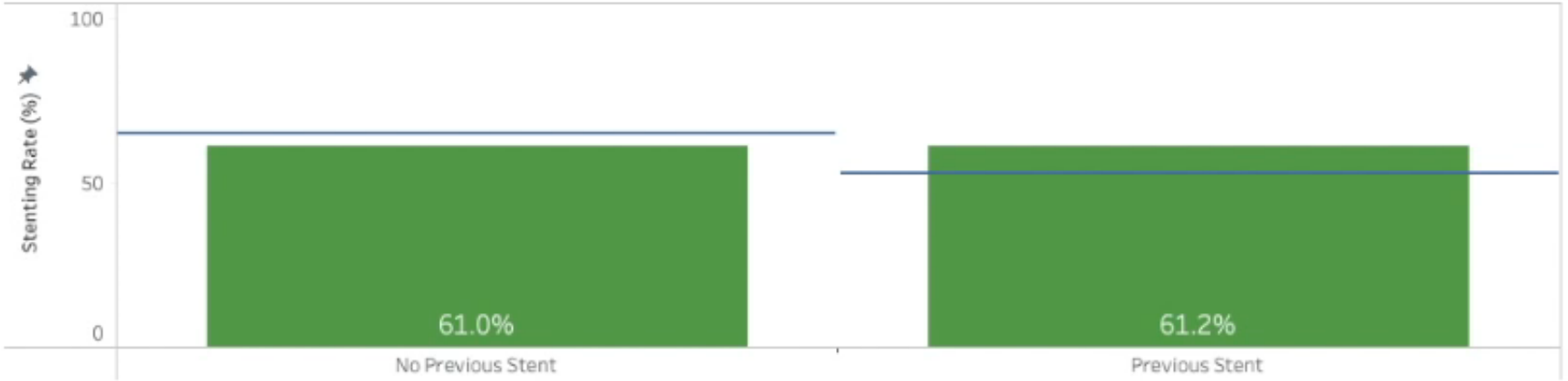
Age (yrs)	BMI	Charlson Commorbidity Index	Stone Diameter (mm)	Stone Location
(All)	(All)	(All)	(All)	(All)

Postop Stenting Rate for Practice: 11



Select the Urologist ID: 72

Postop Stenting Rate for Urologist: 72

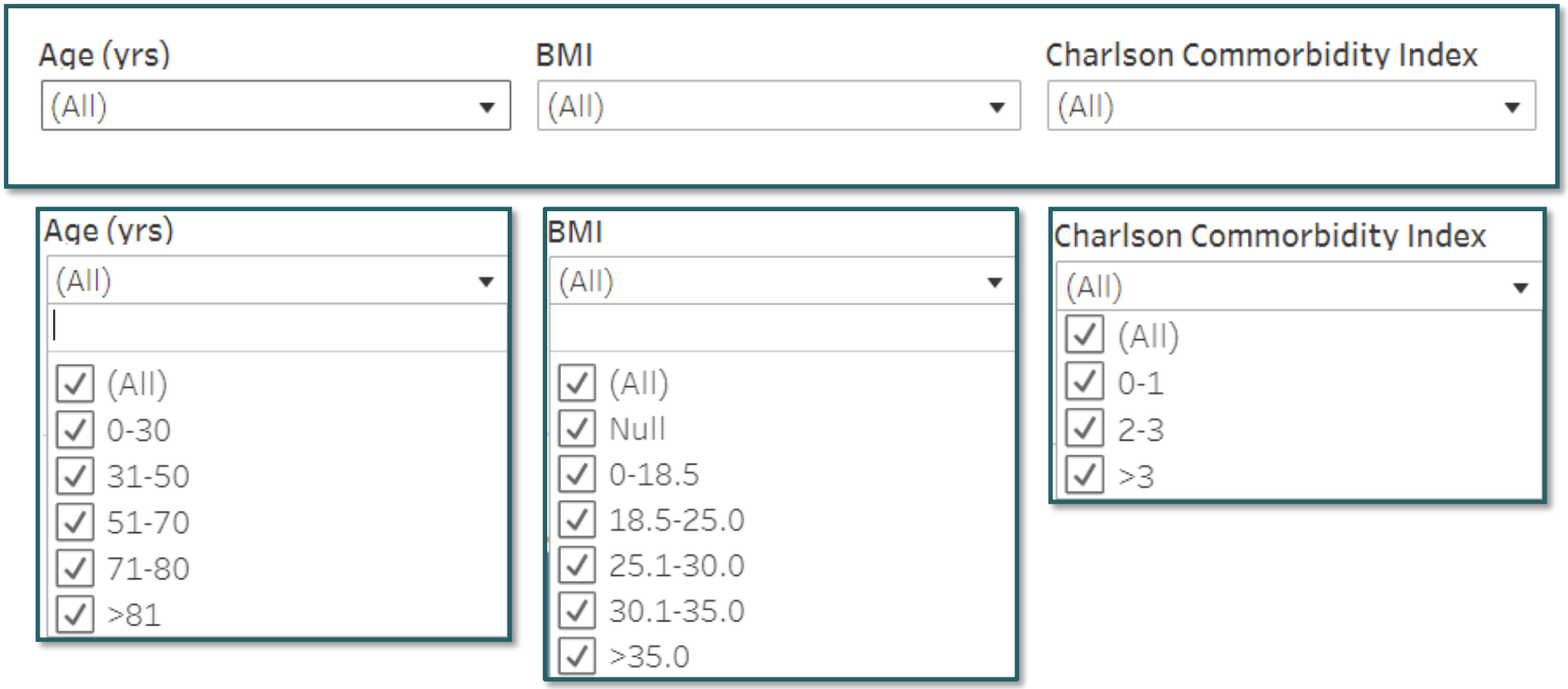


Patient Demographics

Age

BMI

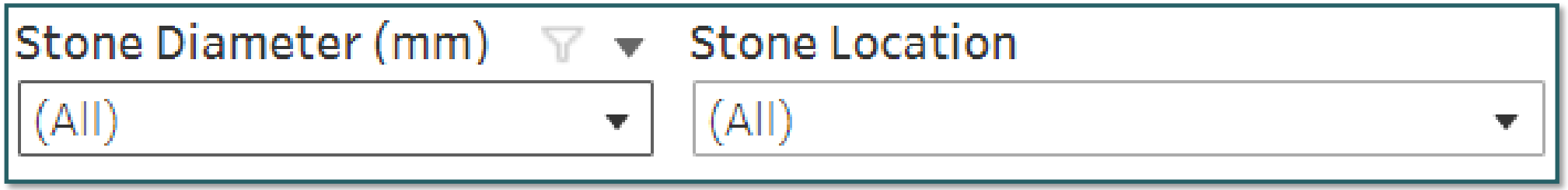
Comorbidity

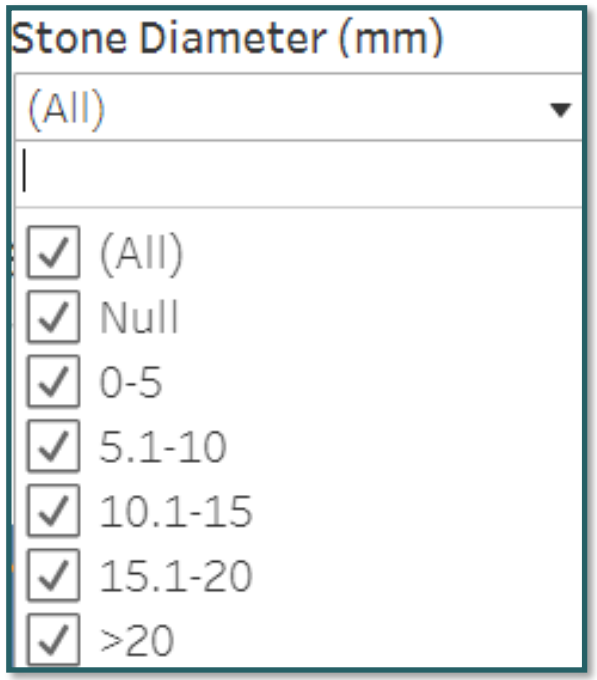


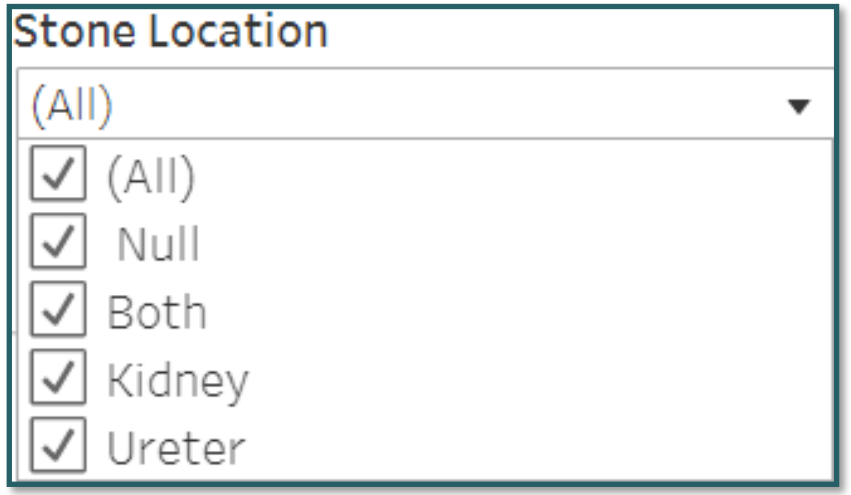
Clinical Characteristics

Size

Location







Easily Assess Change Over Time

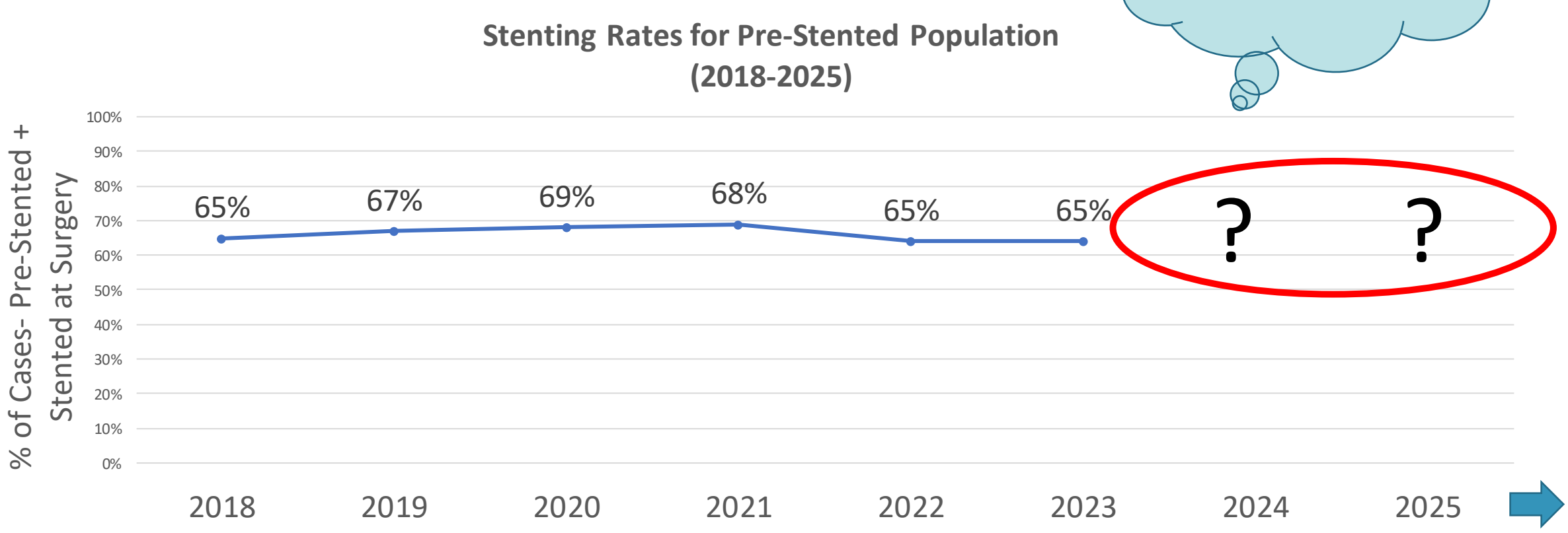
ROCKS Stenting Dashboard

MUSIC Rate Practice Rate Provider Rate

6/1/2016 11/28/2022

What do you think?

Will this intervention lead to real change?



Panelist Introduction

Dr. John Ludlow

Western Michigan Urological Associates

Dr. Brian Seifman

Michigan Institute of Urology

Dr. Mark Hemmila

Michigan Medicine
Program Director, MTQIP

Dashboard Implementation

- Benchmarking* and registries can provide data and a target
- "…progress is as much about implementation as it is about invention."

The Eureka Theory of History is Wrong. Derek Thompson

The Atlantic; Jan 2023

* **The Benefits of Benchmarking—A New Perspective on Measuring Quality in Surgery.** Jeffrey Barkun, MD[1]; Pierre Clavien, MD, PhD[2]; Timothy M. Pawlik, MD, PhD, MPH, MTS, MBA[3,4] *JAMA Surg,* Jan 23, 2023

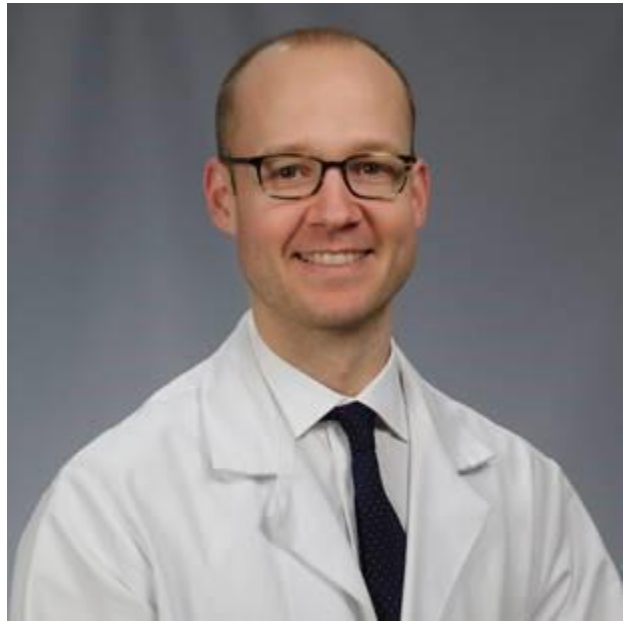
Future Directions

Launch to 3 Pilot Sites

- Michigan Institute of Urology
- Comprehensive Urology
- Spectrum/ Corewell

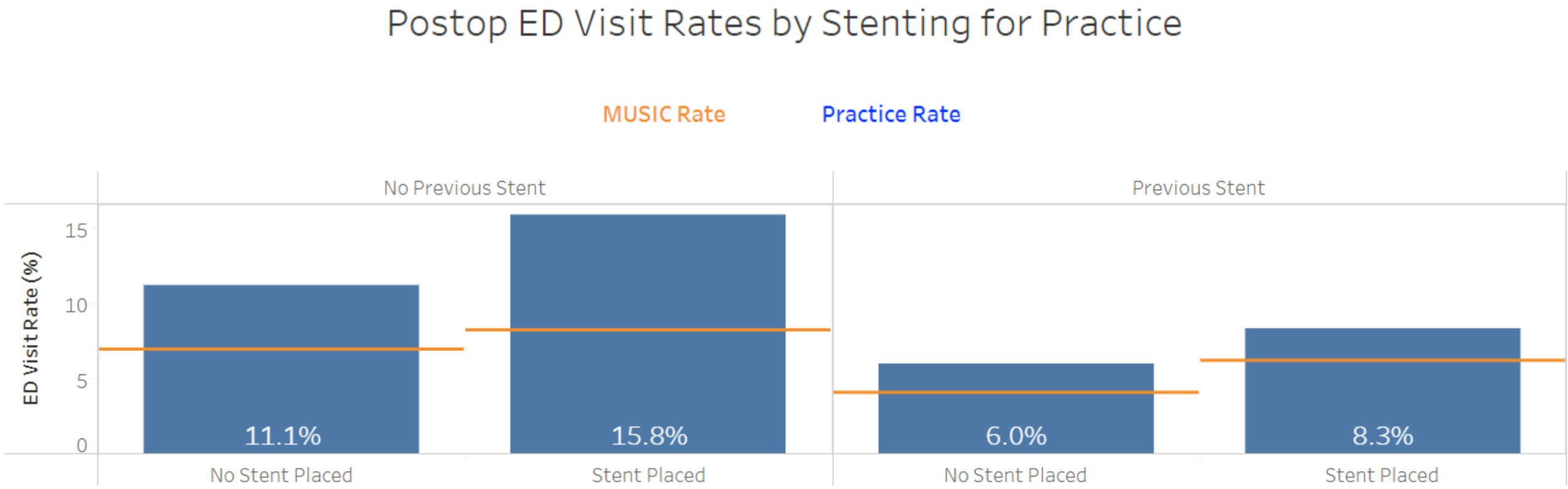
→ **3-6 month data collection**

2 Year Dissemination Plan to All Sites



Dr. Kristian Stensland
Michigan Medicine Urology, Surgical Oncology

Stent Omission in Pre-stented Patients can help us Achieve Better Outcomes



Lunch

Coping with **A**dve**R**se **E**vent**S** (CARES)

Karla Witzke, DO, FACOS

"If you haven't had any complications, you haven't done enough surgery"

What creates this feeling?

- Patients may perceive their doctors as infallible experts.
- **Physicians** similarly tend to expect the **same unrealistic levels of perfection from themselves.**

Second Victim

- Health care providers who commit an error and are traumatized by the event
    - Psychological (shame, guilt, anxiety, grief, and depression)
    - Cognitive (compassion dissatisfaction, burnout, secondary traumatic stress)
    - Physical reactions that have a personal negative impact

- Wu AW. Medical error: the second victim. The doctor who makes the mistake needs help too. BMJ. 2000;320(7237):726–727. doi: 10.1136/bmj.320.7237.726 [PMC free article] [PubMed] [CrossRef] [Google Scholar]

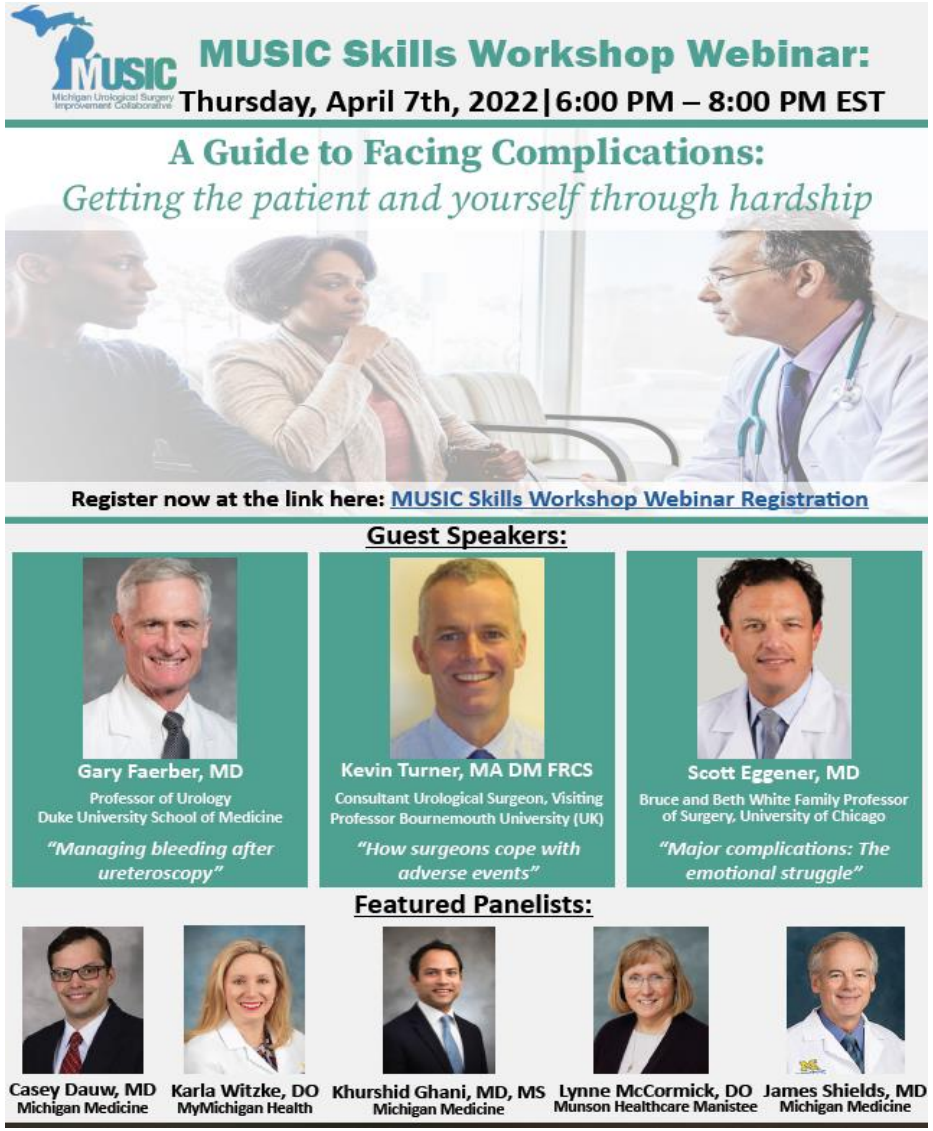
History behind the term second victim

- Institute of Medicine report “To Err is Human”

- Dr Albert Wu wrote an essay stating, “although patients are the first and obvious victims of medical mistakes, **doctors are wounded by the same errors; they are the second victims**.”

Were you prepared for this is in residency training?

Where it all began



155 attendees

Global audience

14 countries

Skills Workshop Feedback

- Such an important topic. Have been there. Getting through the next case is the hardest. Agree with Scott, **support of mentors and peers is what gets you through**. -Alexander Kutikov

- Amazing forum. Remember these themes next time you participate in peer review (morbidity and mortality conference). **Empathy and compassion**. -Serge Ginzburg

Skills Workshop Feedback

- It was immensely helpful at this very time as I am going through a tough time with an adverse event that happened to one of my patients. **Best talk I have attended** and really worth staying this late to listen to. -Aza Mohammed

- Another great MUSIC meeting**. This was an exceptional, important and neglected topic**. One of the best meetings I've ever been to. -Daniel Flewelling

Skills Workshop Feedback

- As a third-year medical student with a non-traditional background of work in patient experience and physician wellbeing, I not only left this session with valuable insight regarding urologic disease and management, but a sense that the **MUSIC community is sincerely invested in holistically enhancing the practice of urology in every way**. -Katarina Stark

What's the problem?

- Assume something happens to surgeons, because of surgery, that affects them profoundly—how happy they are, how healthy they are, how they treat their families, how well they sleep, how much they drink, even how well they do their job….
- Assume we know that, recognize that, and could even do something about that
- And assume we have chosen not to
- **That's the problem**

-Kevin Turner, MA DM FRCS
AUA 2023

What was the reaction to the MUSIC workshop?

- Nationally (Dr Kevin Turner)
  - Journal of Urology special article October 2022
    - Surgery Harms Surgeons. What Can We Do?
  - Society of Urology Oncology Guest Lecture December 2022
  - Journal of Urology Lecture, American Urologic Association April 2023

Responses were encouraging

Urologists reached out to express their interest in keeping the momentum going

Create a Peer Support Network!

- Support urologists following unanticipated events as well as daily stressors
- Provide consistent and targeted system-wide support
- Be better prepared for it before it comes, and must deal with it better when it does happen[1]
- Surgeons who deal with this well, will do better for their patients

- ULTIMATE OUTCOME: BENEFIT PATIENTS

1. Turner, K. J (2022), "Surgery harms surgeons. What can we do?" The Journal of Urology, 208 (4), 762-763.

Engaging Stakeholders

April 2022- April 2023

MUSIC Members

- Identified need for peer support
- Physicians volunteered to become supporters

BlueCross BlueShield of Michigan

- Approved MUSIC's establishment of a peer support group

Michigan Medicine Legal

- Reviewed legal implications
- Provided guidance on legal matters pertaining to a support group

Compassionate Peers And Stress Support (COMPASS)

- Connected with a psychologist who helped develop training materials used for a similar support group at Michigan Medicine

- Is this program for me?
- Do I really need this?

Universality

"Every surgeon carries within themselves a small cemetery, where from time to time they go to pray—a place of bitterness and regret, where they must look for an explanation for their failures."

-Rene Leriche

Yes, you really need this!!!

- Your family needs this for you
- Your staff needs this for you
- Your patients need this for you
- You need this for you

Let’s stop this cycle of quiet suffering

- **Surgeons** are less likely than other doctors to engage with existing formal support mechanisms and have been described as a **“minority within a minority”**
- High satisfaction with peer support program.

- Hu, Y. Y., Fix, M. L., et al. (2012). Physicians' needs in coping with emotional stressors: The case for peer support. Archives of Surgery, 147(3), 212-217.
- Edrees, H., Connors, C., et al. (2016). Implementing the RISE second victim support programme at the Johns Hopkins Hospital: A case study. BMJ Open, 6(9), e011708.
- Turner, K. J. (2022). Surgery harms surgeons. What can we do?. The Journal of Urology, 208(4), 762-764.

Is our work stressful?

Urology named most stressful job in 2022: report

Claire Wallace - Thursday, December 8th, 2022

Urology has been named the most stressful job of 2022, according to a Dec. 8 report from *CNBC* based on a study from the Occupational Information Network, a part of the U.S. Department of Labor.

Urology is ranked the most stressful job, with a stress level ranking of 100 out of 100.

slido

After experiencing an adverse event, did you speak to someone else about it? If so, who?

ⓘ Start presenting to display the poll results on this slide.

slido

Currently, do you feel you have peer support within your organization/ practice?

ⓘ Start presenting to display the poll results on this slide.

Pillars of MUSIC CARES

Connects MUSIC members with someone (i.e., a supporter) who has been through a similar experience for social/emotional support, information, and resources.

Provides one-on-one peer support and education on common responses to stressful or traumatic events.

Provides a safe zone to express personal reactions to stress and helps to promote and enhance coping skills.

Confidential.

How to Seek Support

- Submit request for peer support (private and confidential)
  - Allows for anonymous submission
  - Call options available
  - Physicians will be “on call”
  - Physicians will respond at least within one week

slido

Which modality would you prefer to utilize?

ⓘ Start presenting to display the poll results on this slide.

Thank You to our Peer Supporters!

Karla Witzke, DO
MyMichigan Health

Khurshid Ghani, MD
Michigan Medicine

Eduardo Kleer, MD
IHA Medical Group

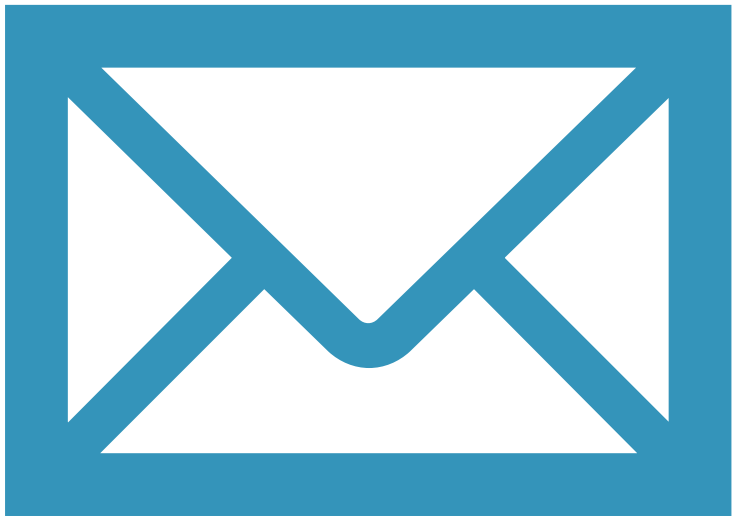
Golena Fernandez, MD
Michigan Medicine

James O Peabody, MD
Henry Ford Health

Arya Khatiwoda, DO
Michigan State University- Urology

William Johnston, MD
Michigan Institute of Urology

Interested in Participating?



Reach out to the Coordinating Center at musiccares@umich.edu

For ideas and suggestions to improve this initiative reach out to me at Karla.Witzke@mymichigan.org

MUSIC
Michigan Urological Surgery Improvement Collaborative

CARES
Coping with AdveRse EventS

"The IOM certainly picked the title of its groundbreaking report well. To err is definitely human. It's also human, however, to care about what happens when error occurs."

Danielle Ofri, MD, PhD, "*When We Do Harm*"

Technical Review of Partial Nephrectomy: Results of Video Review

Brian Lane, MD, PhD
Craig Rogers, MD

Bariatric Surgery: Video Based Evaluation of Surgical Skill

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Surgical Skill and Complication Rates after Bariatric Surgery

John D. Birkmeyer, M.D., Jonathan F. Finks, M.D., Amanda O'Reilly, R.N., M.S., Mary Oerline, M.S., Arthur M. Carlin, M.D., Andre R. Nunn, M.D., Justin Dimick, M.D., M.P.H., Mousumi Banerjee, Ph.D., and Nancy J.O. Birkmeyer, Ph.D., for the Michigan Bariatric Surgery Collaborative

ABSTRACT

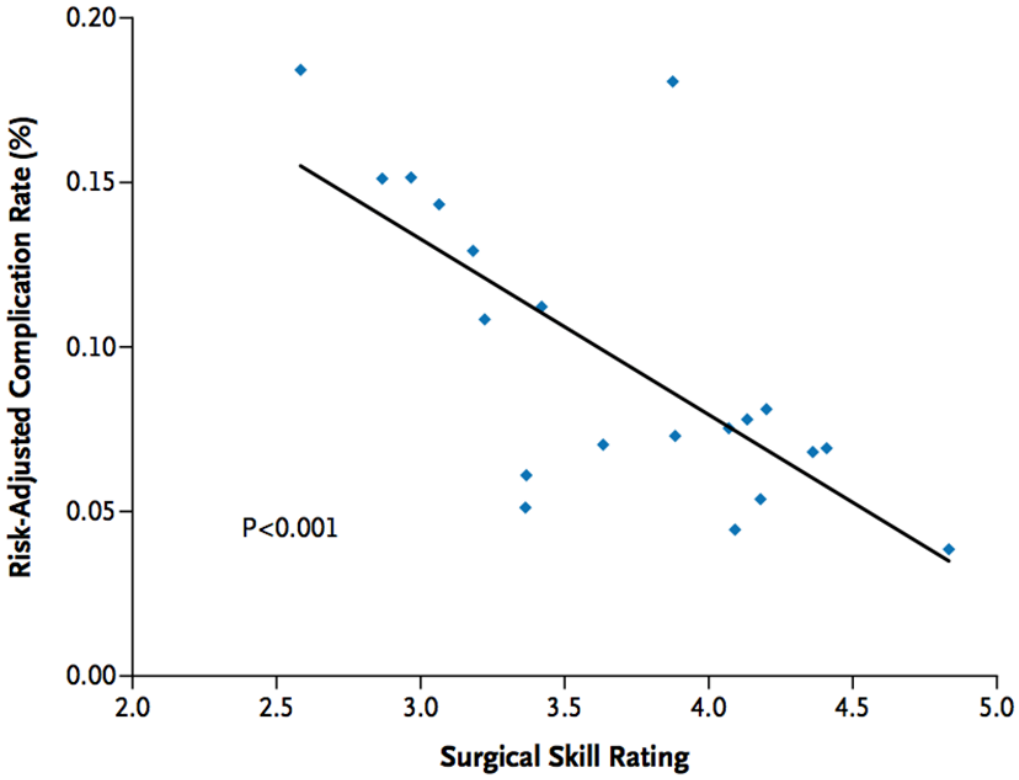
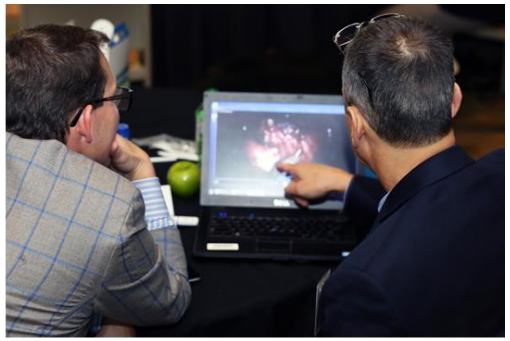


Figure 1. Relationship between Summary Peer Rating of Technical Skill and Risk-Adjusted Complication Rates after Laparoscopic Gastric Bypass.

Each diamond in the scatter plot represents 1 of 20 practicing bariatric surgeons.

Video Review Philosophy

Peer Workshop → Video Review → Skill → Technique → Outcomes



Benefits of Video Review

Peer to peer feedback

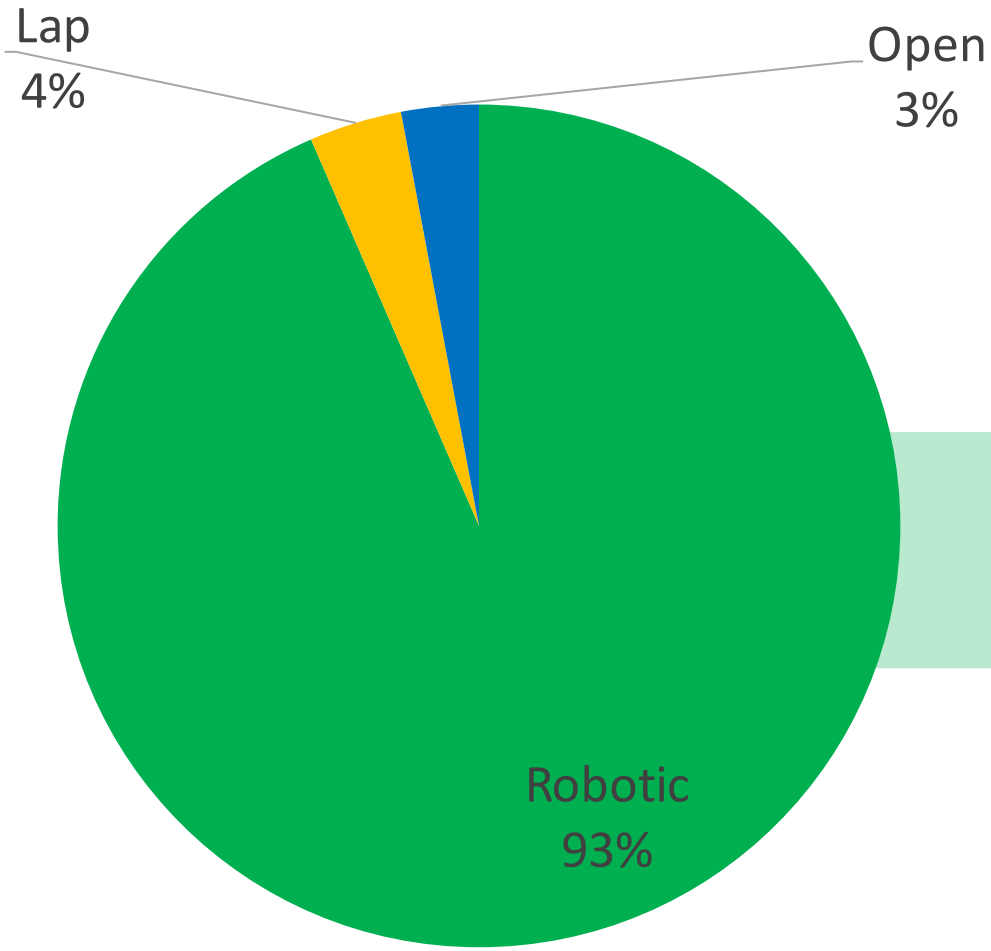
Opportunity for coaching

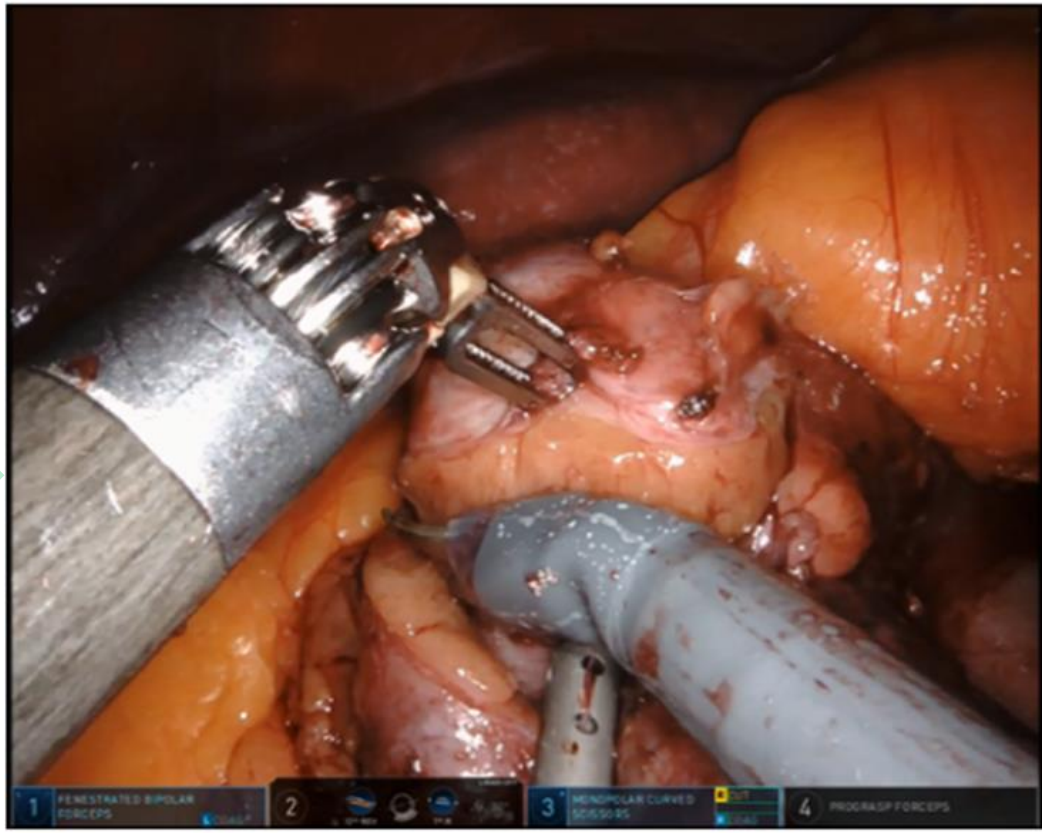
Seeing many ways to do the “same operation”

PN Video Review Rationale and Process

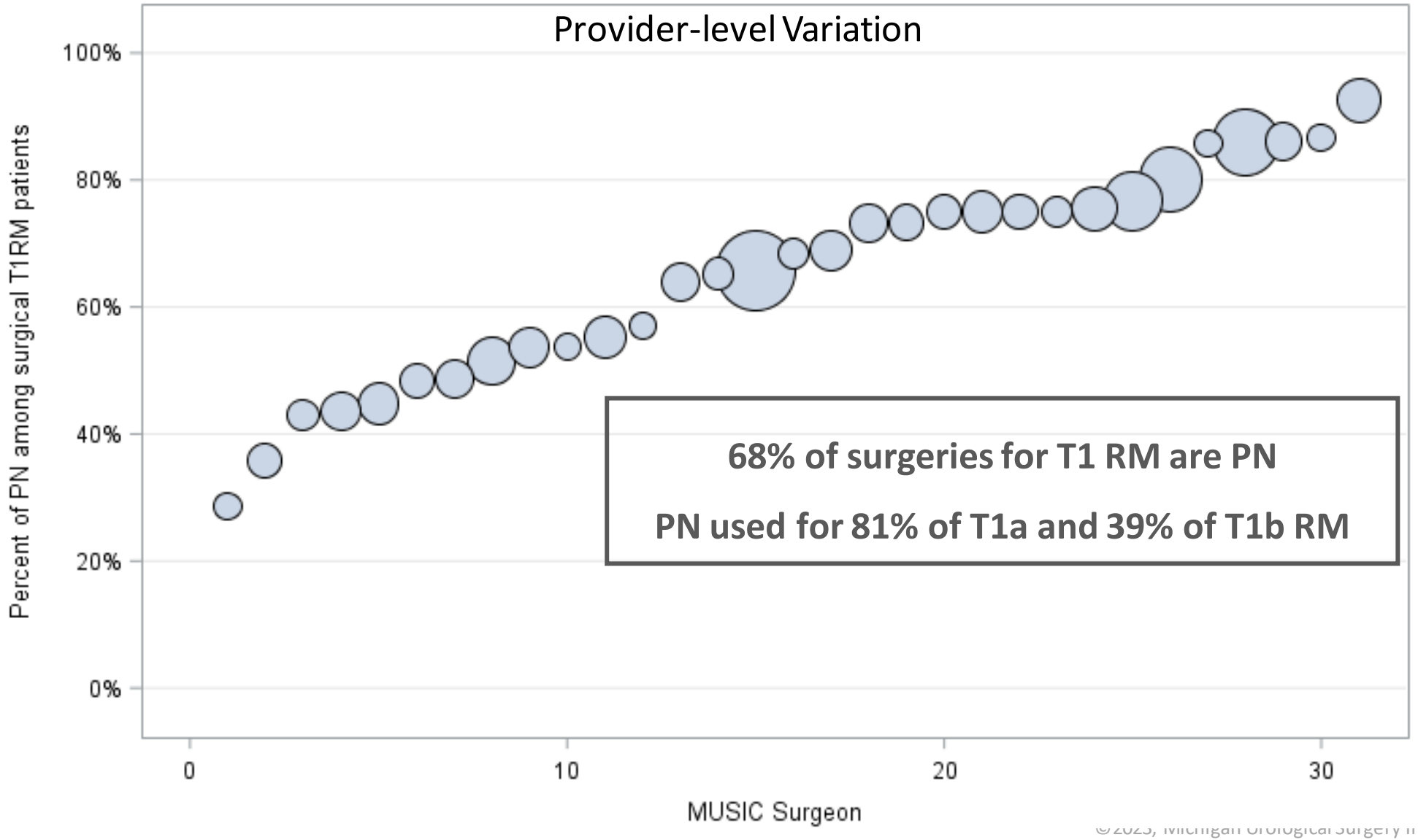
Rationale: Opportunity with Partial Nephrectomy

PN Approach in MUSIC KIDNEY

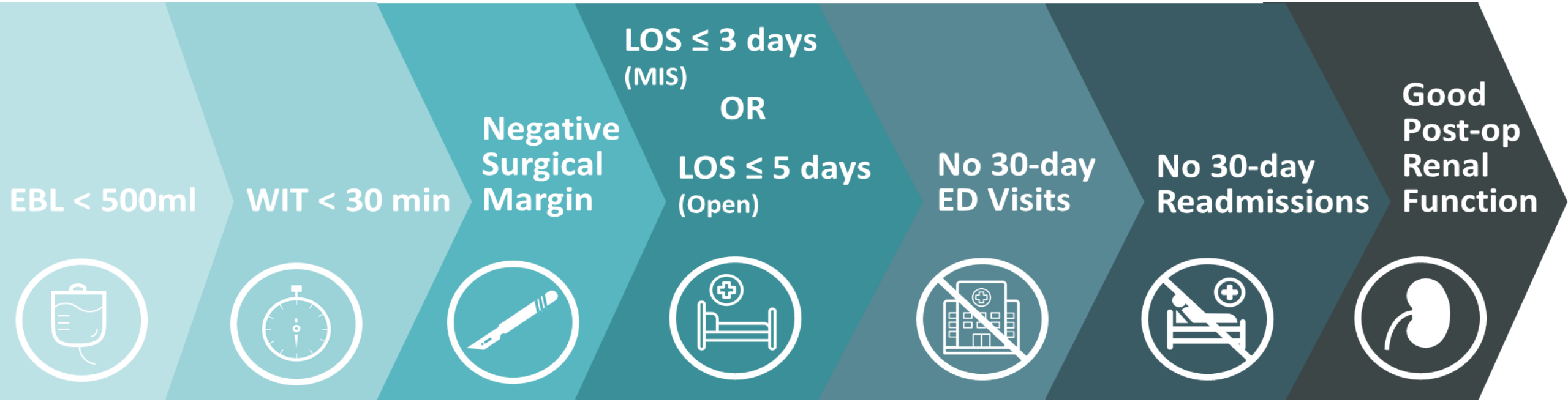




High Variability in PN Utilization for T1RM



KIDNEY NOTES
(Notable Outcomes and Trackable Events after Surgery)



Goals of RPN Video Review Project

COLLECTIVELY GAIN KNOWLEDGE OF PN TECHNIQUE

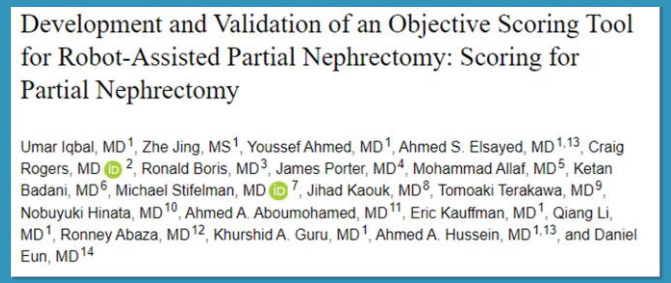
INCREASE COMFORT AND SKILL IN PN THROUGH SYSTEMATIC PEER REVIEW

DETERMINE CORRELATION BETWEEN TECHNICAL SKILLS AND OUTCOMES

Approach to Video Review

Objective Feedback

SPaN Score



Development and Validation of an Objective Scoring Tool for Robot-Assisted Partial Nephrectomy: Scoring for Partial Nephrectomy

Umar Iqbal, MD[1], Zhe Jing, MS[1], Youssef Ahmed, MD[1], Ahmed S. Elsayed, MD[1,13], Craig Rogers, MD[2], Ronald Boris, MD[3], James Porter, MD[4], Mohammad Allaf, MD[5], Ketan Badani, MD[6], Michael Stifelman, MD[7], Jihad Kaouk, MD[8], Tomoaki Terakawa, MD[9], Nobuyuki Hinata, MD[10], Ahmed A. Aboumohamed, MD[11], Eric Kauffman, MD[1], Qiang Li, MD[1], Ronney Abaza, MD[12], Khurshid A. Guru, MD[1], Ahmed A. Hussein, MD[1,13], and Daniel Eun, MD[14]

+

Subjective Feedback

Free Text

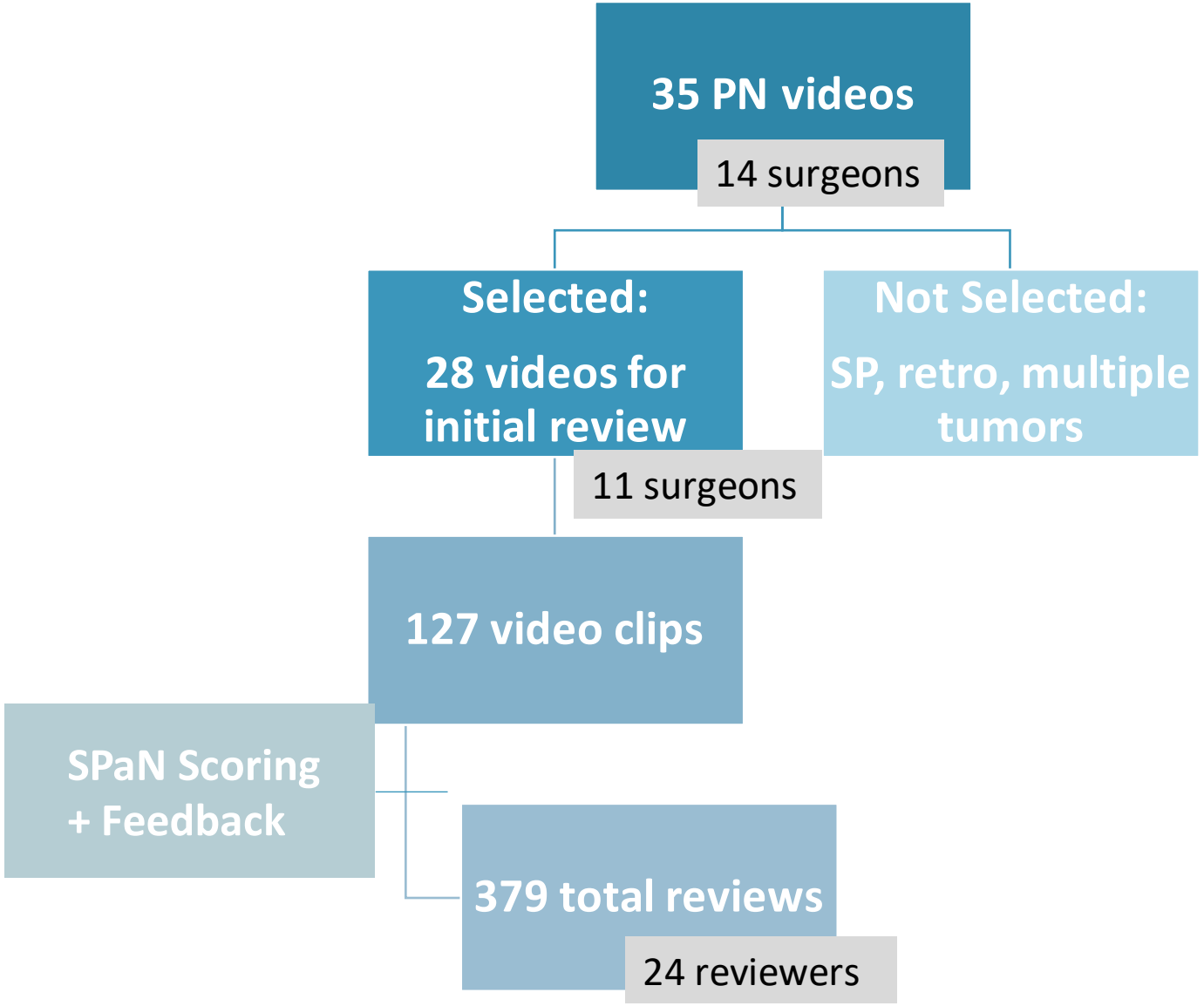
Example:

Good dissection and exposure of defect

How was the SPaN scoring system utilized?

- Exposure of Kidney
- Identification and Dissection of Ureter and Gonadal Vessels
- Dissection of the Hilum
- Tumor Localization and Exposure
- Clamping and Tumor Resection
- Renorrhaphy

Video Review Process



Median number of videos submitted per surgeon: 2

Median number of clips reviewed per reviewer: 16

Surgeons who submitted videos

- Alice Semerjian
- Alon Weizer
- Ben Stockton
- Brad Rosenberg
- Brian Lane
- Brian Seifman
- Christopher Brede
- Craig Rogers
- Khurshid Ghani
- Lewis Johnson
- Michael Levin
- Mohammed Jafri
- Thomas Maatman
- William Johnston

Surgeons who reviewed videos

- Ajay Gopalakrishna
- Alice Semerjian
- Austin Fernstrum
- Brad Rosenberg
- Brian Lane
- Brian Seifman
- Chris Brede
- Conrad Tobert
- Craig Rogers
- Golena Fernandez
- James Peabody
- Jay Starr
- Julie Brownell
- Kevin Ginsburg
- Khurshid Ghani
- Michael Kozminski
- Michael Levin
- Michael Traver
- Mohammed Jafri
- Navneet Mander
- Randy Chudler
- Sabry Mansour
- Thomas Maatman
- Wooju Jeong

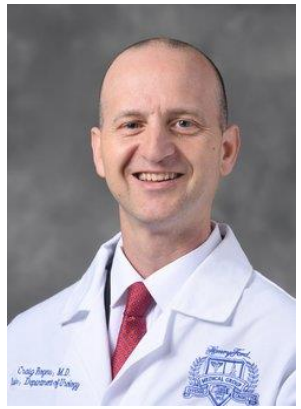
Panelist Discussion

Austin Fernstrum, MD
Bronson Urology & Continence Specialists

Conrad Tobert, MD
Corewell Health

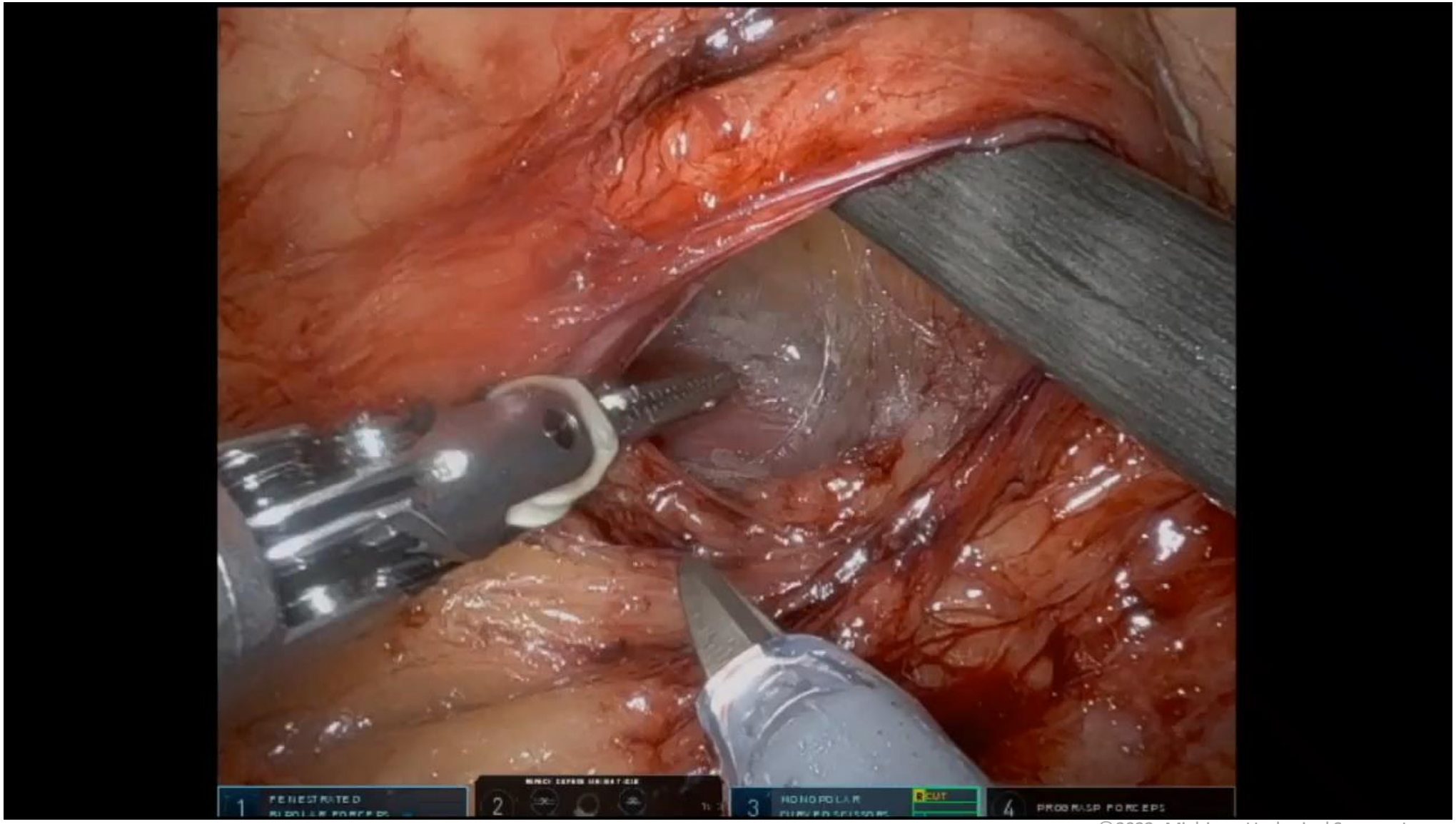
Thomas Maatman, DO
Michigan Urological Clinic

Michael Kozminski, MD
Urology Associates



Craig Rogers, MD
Henry Ford Health

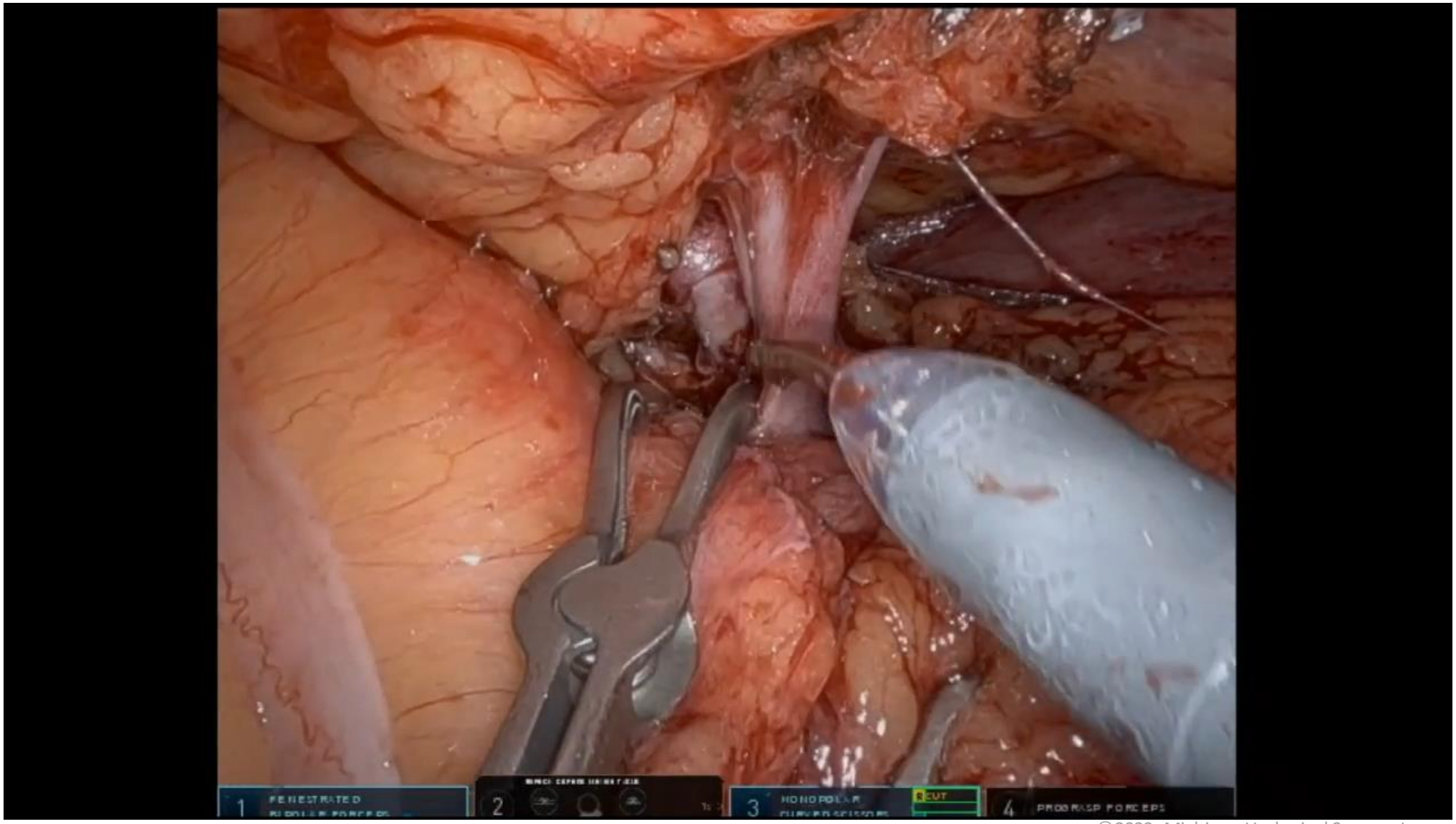
Video 1 – Hilar dissection video



Feedback given in VR

- All 3 reviewers scored a 5
- Comments:
  - Good exposure
  - Fast but safe dissection of vessels
  - Difficult dissection due to split vein but did well
  - Great job supervising resident (telestration use)

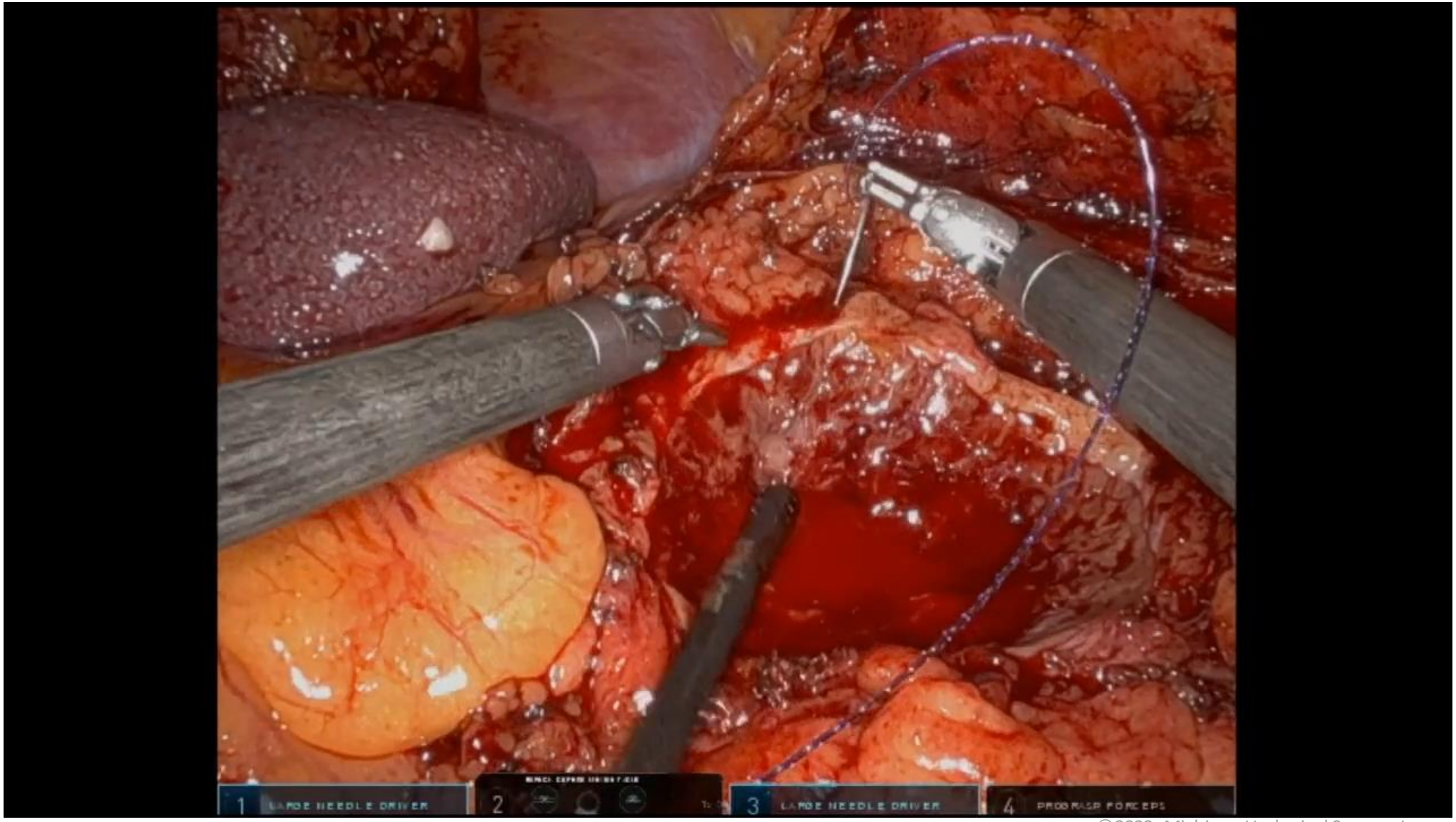
Video 2 – Clamping and tumor excision



Feedback given in VR

- 2 reviewers scored a 4, 1 reviewer scored a 2
- Comments:
  - Concern for positive margins, resection was too close to the mass
  - Too much bleeding, visualization not ideal
  - Good vascular dissection and control with clamps
  - Consider leaving vein unclamped
  - Very difficult case

Video 3 - Renorrhaphy

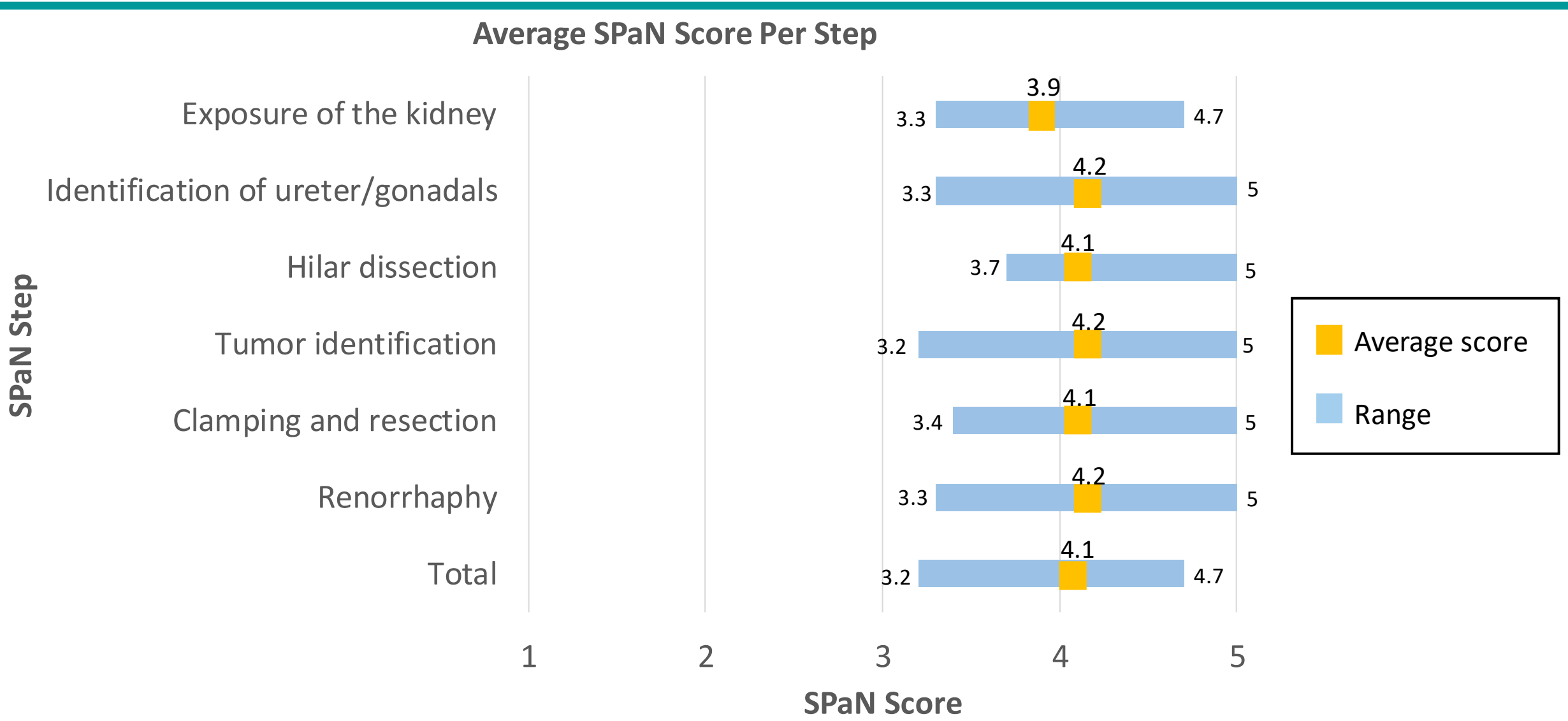


Feedback given in VR

- Reviewers scored a 2, 3, and 4
- Comments:
  - Good dissection and exposure of defect
  - Suboptimal bleeding control in an arterial branch
  - Consider additional inner layer suture
  - Good tightening of outer layer suture
  - Consider doing these steps off clamp to avoid extra clamp time

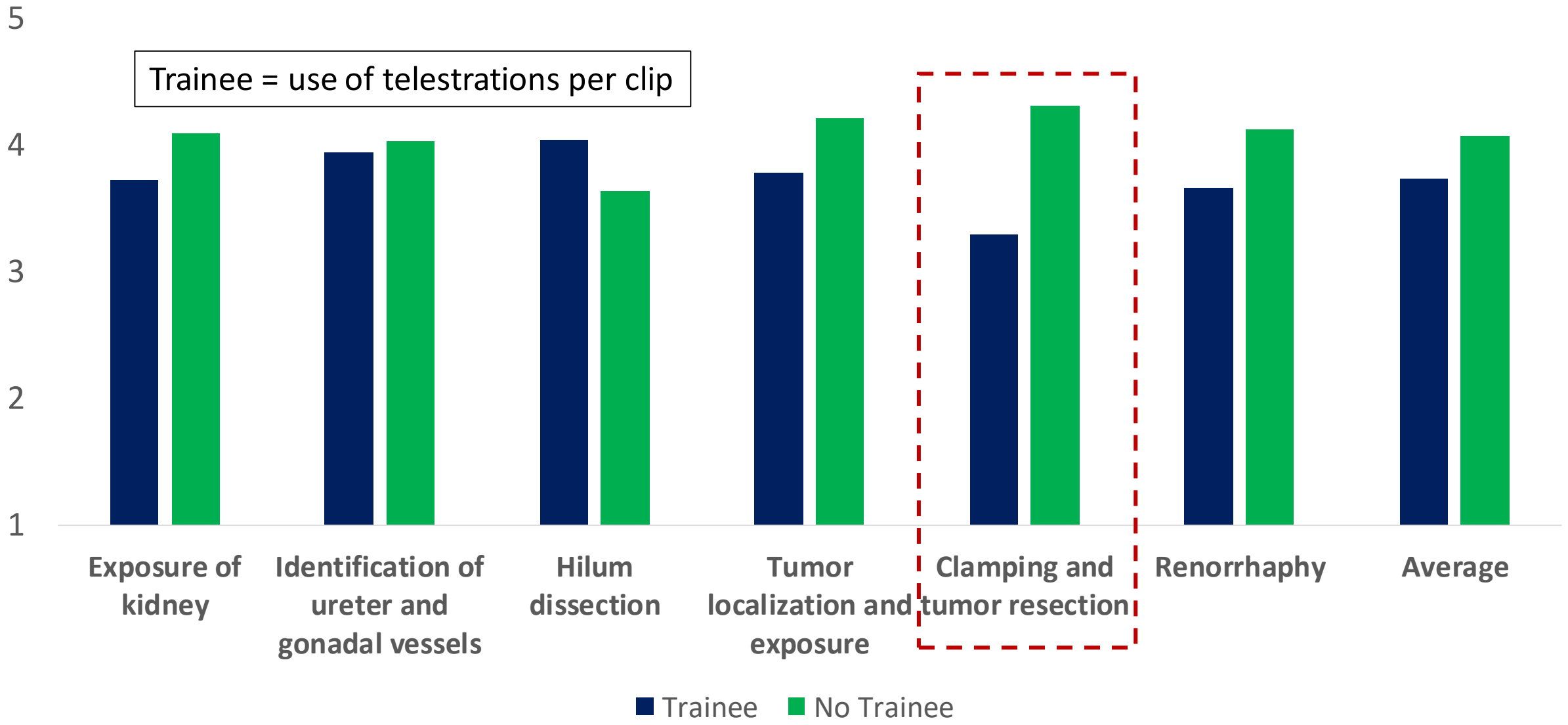
PN Video Review Results

MUSIC Surgeons were rated on average between 3-5

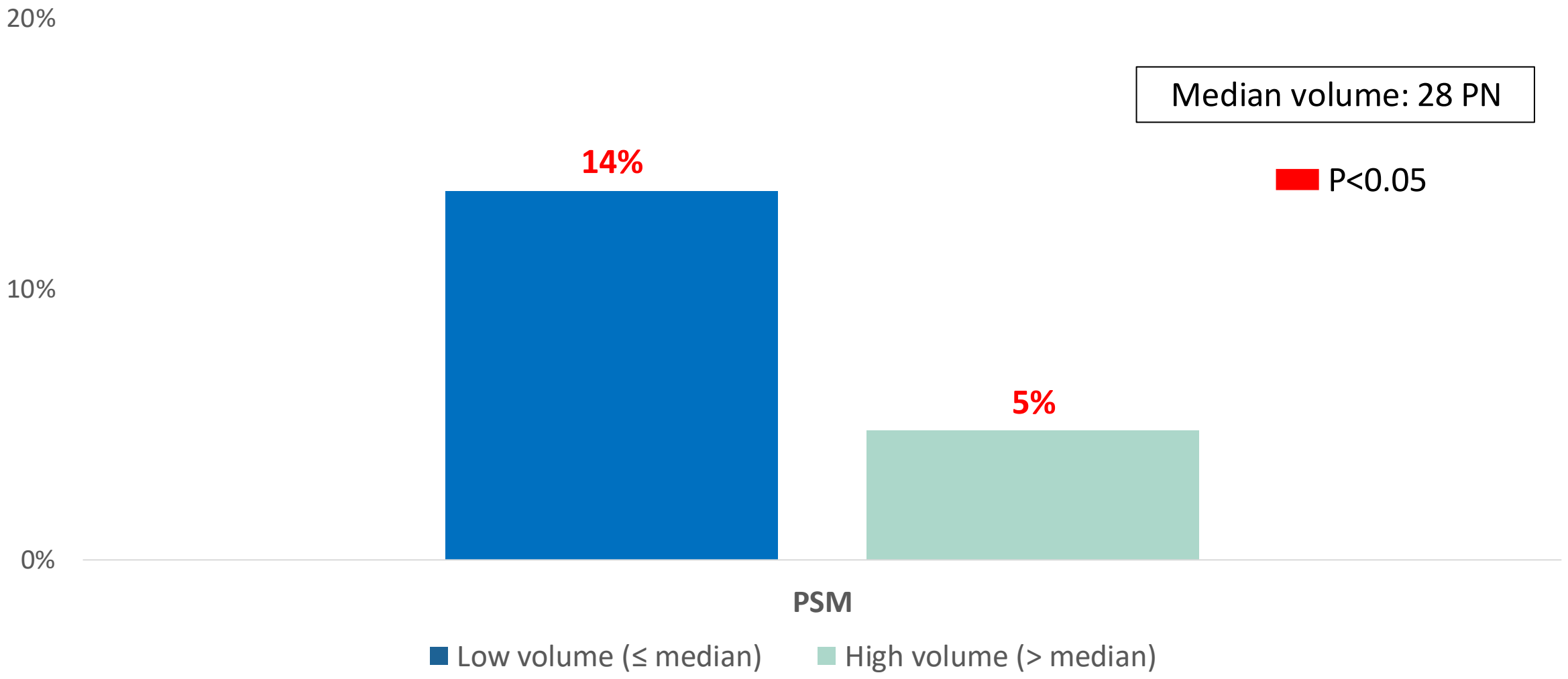


*SPaN scores are scored on a 5 pt Likert Scale, with 5=high technical skill

Do trainees compromise the quality of PN?

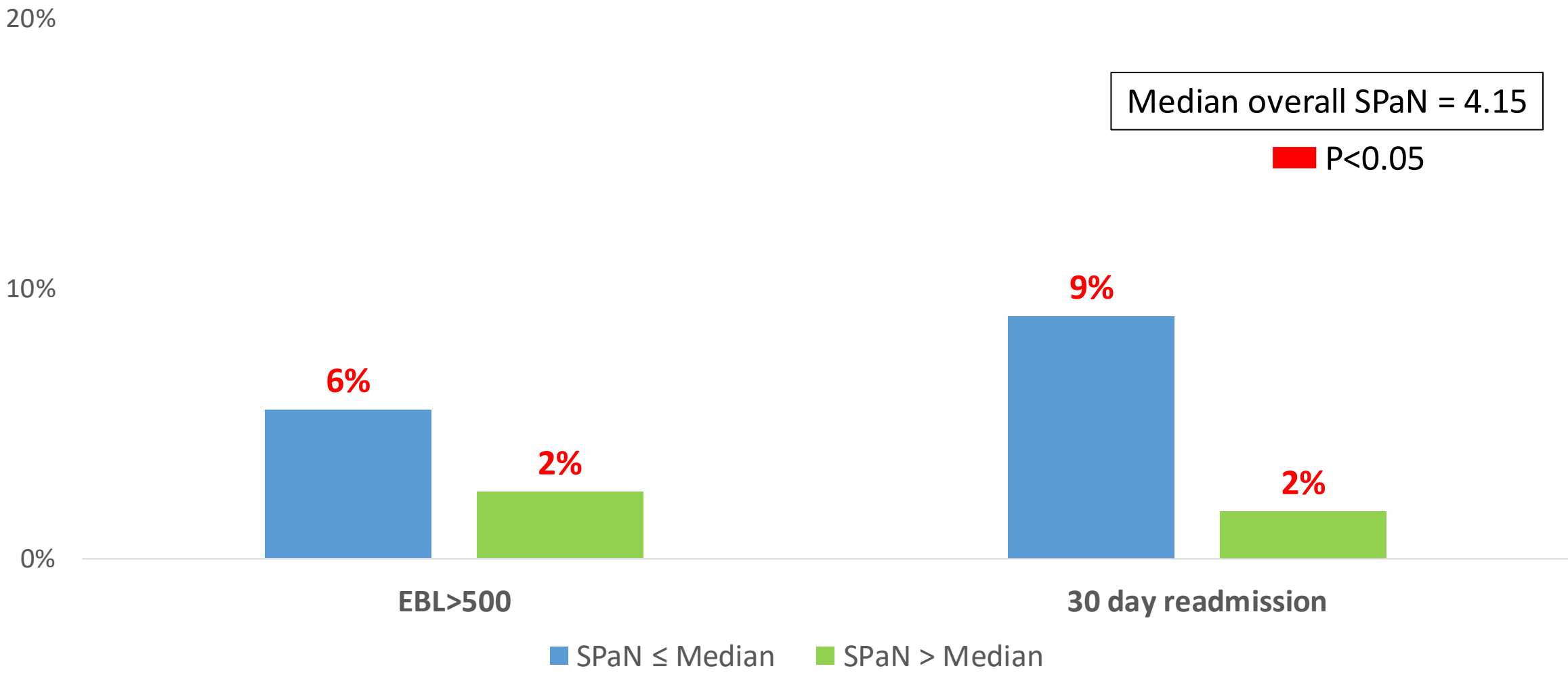


PSM rate is higher for lower volume surgeons



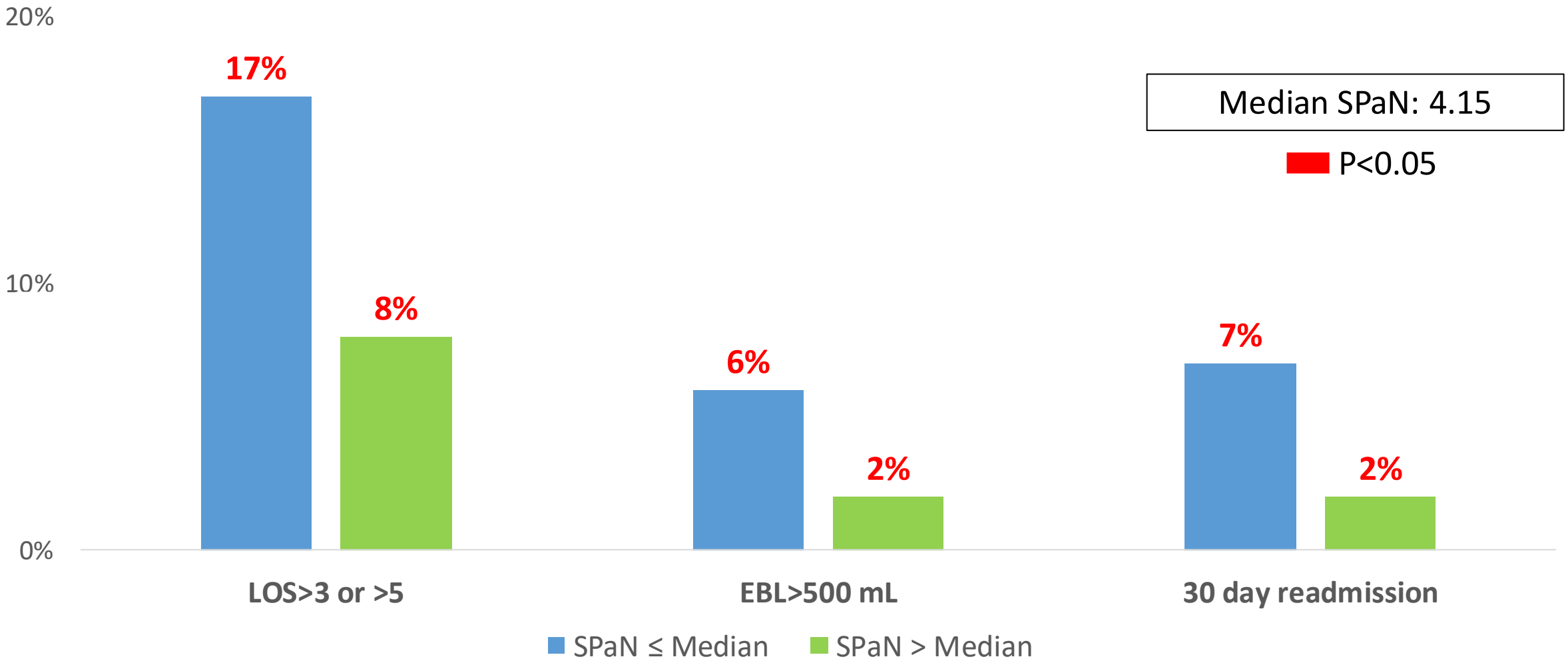
*For surgeons who submitted videos

Lower **overall SPaN** is associated with poorer outcomes

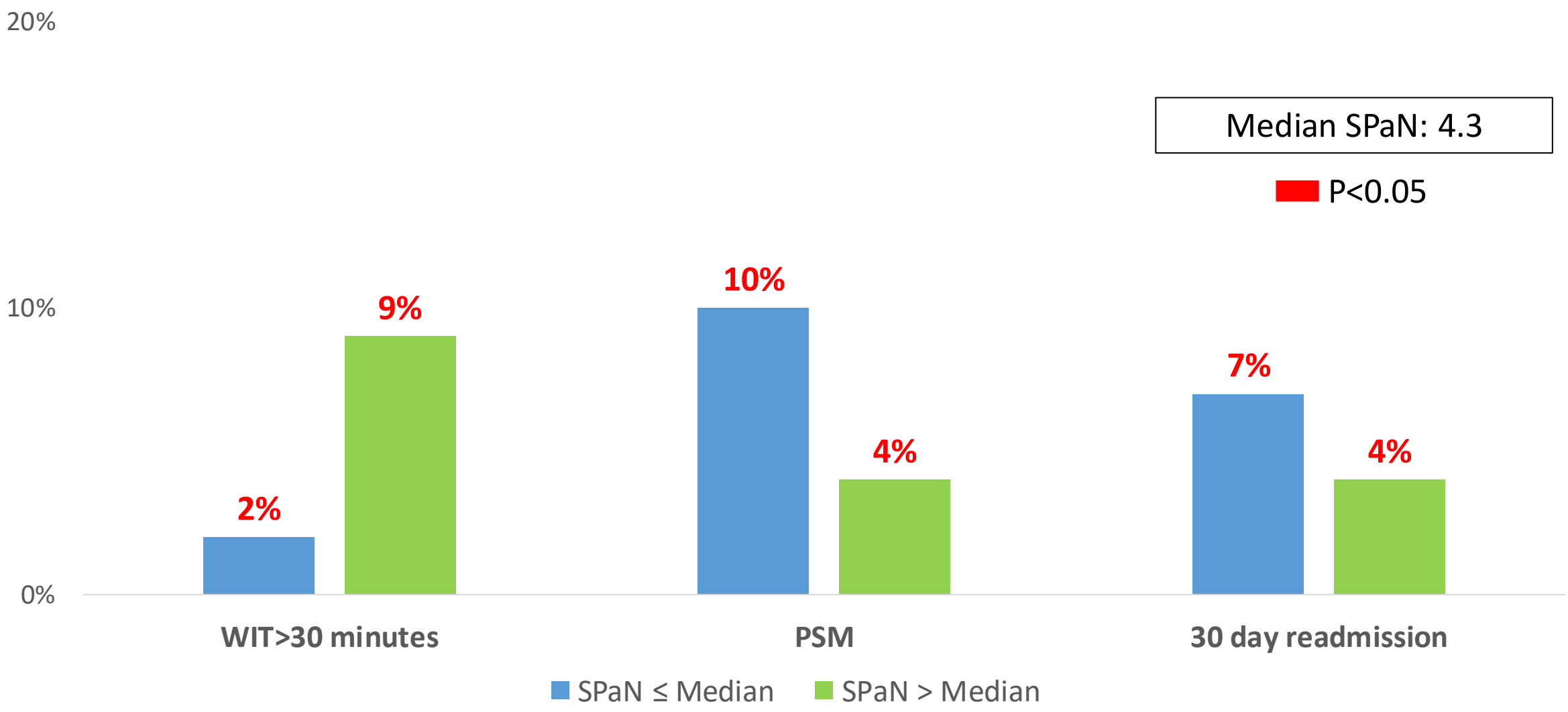


*For surgeons who submitted videos

Low scores in **tumor resection** are associated with:



Low scores in **renorrhaphy** are associated with:



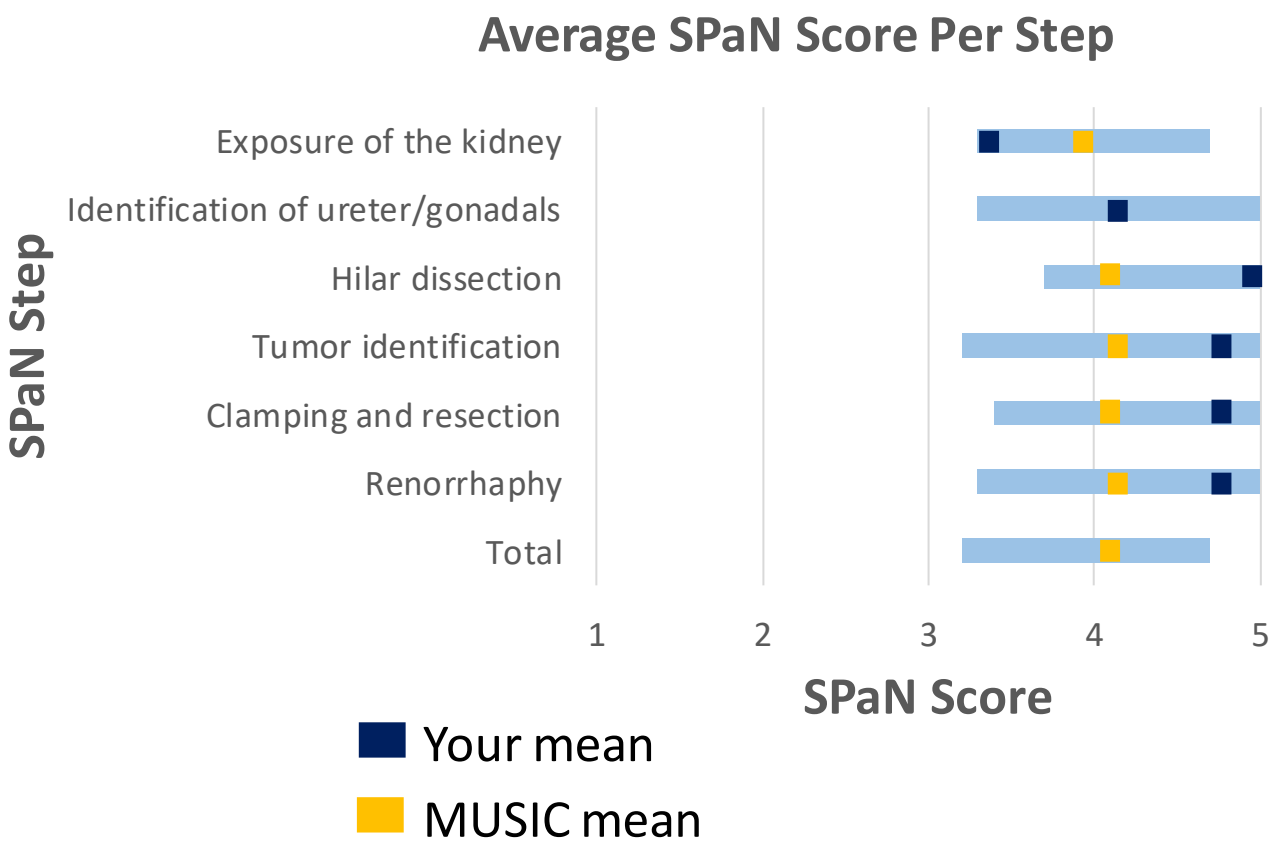
Panelist Discussion

Conrad Tobert, MD
Corewell Health

Thomas Maatman, DO
Michigan Urological Clinic

Brian Lane, MD, PhD
Corewell Health

Surgeon Reports



Tumor exposure
(Average SPaN: 4.7)

Reviewer 1:
great job. Well exposed. Nice use of the ultrasound. I only thought would have been to leave some fat on the tumor for margin (I assume you sent the fat over the kidney for pathology) and could be used as a handle

Reviewer 2:
Good visualization of tumor. Good use of ultrasound.

Reviewer 3:
Excellent mobilization of the tumor. Very nice wide dissection to allow for full visualization of the tumor. Good use of intraoperative ultrasound to identify margins.

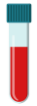
Clamping and excision
(Average SPaN: 5)

Reviewer 1:
clean margins, good control of hemostasis, removed expediently.
Using the prograsp to hold onto and squeeze artery is not ideal--can avulse, repetitive ischemia as well

Reviewer 2:
efficient, excellent exposure of hilar vessels

Reviewer 3:
Nice job - Great exposure. Good technique. Tips down etc

Lessons Learned

- Surgical skill can be described with SPaN
- Surgeons with lower SPaN scores had higher rates of
  - Readmissions 
  - PSM 
  - EBL> 500 mL 

- Video review has multiple benefits for both learners and experienced surgeons
  - Learning from others techniques and feedback
  - Identify areas of improvement in own technical skill
  - Education for trainees

Past

1. **Skills workshop sessions:**
- Managing margins
- Management of bleeding

2. **Video review with only transperitoneal approach**

Future

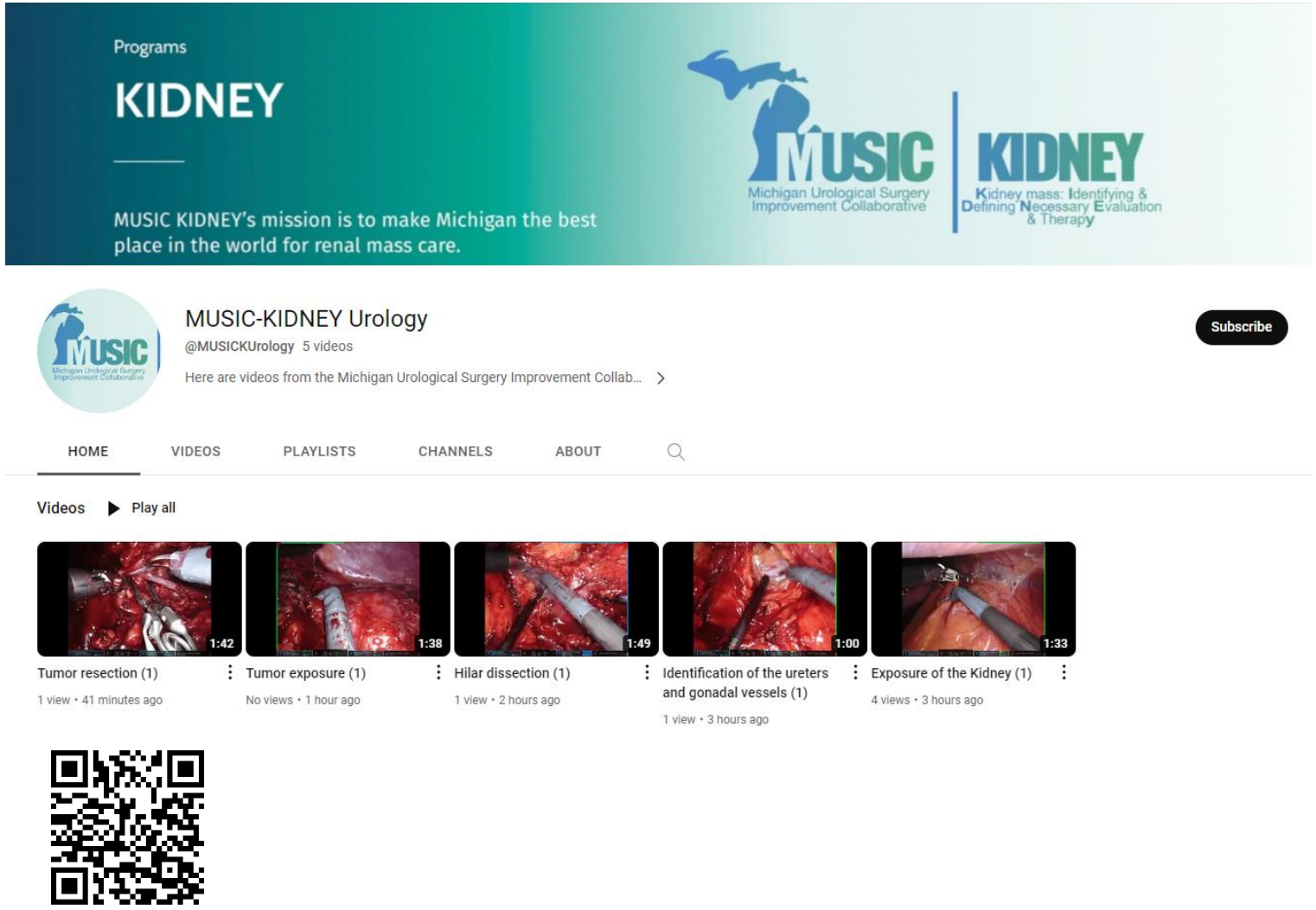
1. **QI opportunity for PSM & readmissions:**
- Skills workshops
- Setting patient expectations by utilizing patient educational materials

2. **Second VR including retroperitoneal & SP. Working with non-MUSIC physicians, or creators of SPaN**

YouTube Resource- Coming Soon!

Our ask:

- If you do RPN, please submit a video (if you haven't already).
- Anyone who does retro or SP RPN, please submit a video.
- Scan QR code to visit our YouTube channel as it's being built.



Break

Be Positive About the Negative Predictive Value of MRI

Arvin George, MD
Kevin Ginsburg, MD

Prostate Updates

New Imaging Resource Available

Do when you should, don't when you shouldn't

Staging Imaging Appropriateness Criteria – 2023

Risk Category	Conventional Imaging MUSIC Appropriateness	PSMA-PET NCCN and AUA Guidelines
Low	1) CT or MRI[1] and 2) Bone Scan Not indicated	Not indicated
Favorable Intermediate	1) CT or MRI[1,2] and 2) Bone Scan Not indicated	Not indicated
Unfavorable Intermediate	1) CT or MRI[2] and 2) Bone Scan Not indicated	Indicated [4,5]
High	1) CT or MRI[3] and 2) Bone Scan Indicated[4]	Indicated [4,5]

[1] MRI indicated if used as a confirmatory test (within 6 months of diagnosis) for those considering active surveillance or as a tumor burden assessment for patients on active surveillance
[2] MRI can be used for treatment planning
[3] Staging CT or second MRI does not need to be obtained if patient already had a recent MRI (either prebiopsy or after diagnosis)
[4] The NCCN panel did not believe negative conventional imaging was a prerequisite to obtaining a PSMA-PET. Per the AUA guidelines, in patents with prostate cancer at high risk for metastatic disease with negative conventional imaging, clinicians may obtain molecular imaging to evaluate for metastasis.
[5] PSMA-PET should not be obtained in patients with demonstrated metastasis on conventional imaging, unless the results of the PSMA-PET will change management (i.e., metastasis directed therapy vs. systemic therapy).

What we don't know about PSMA PET

Wh

Wh

Hov

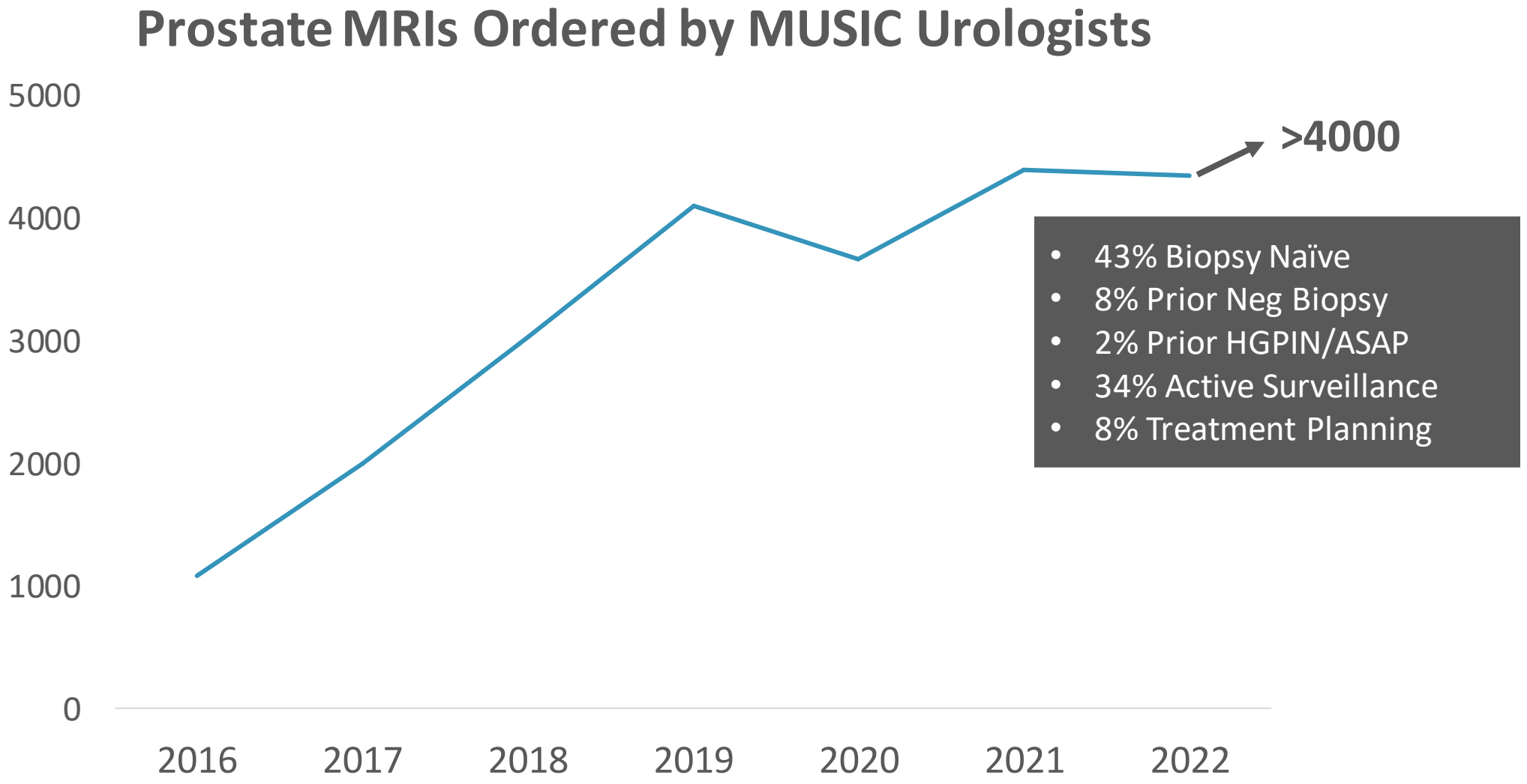
Hov

New PSMA PET data fields are live!

PSMA PET template available!

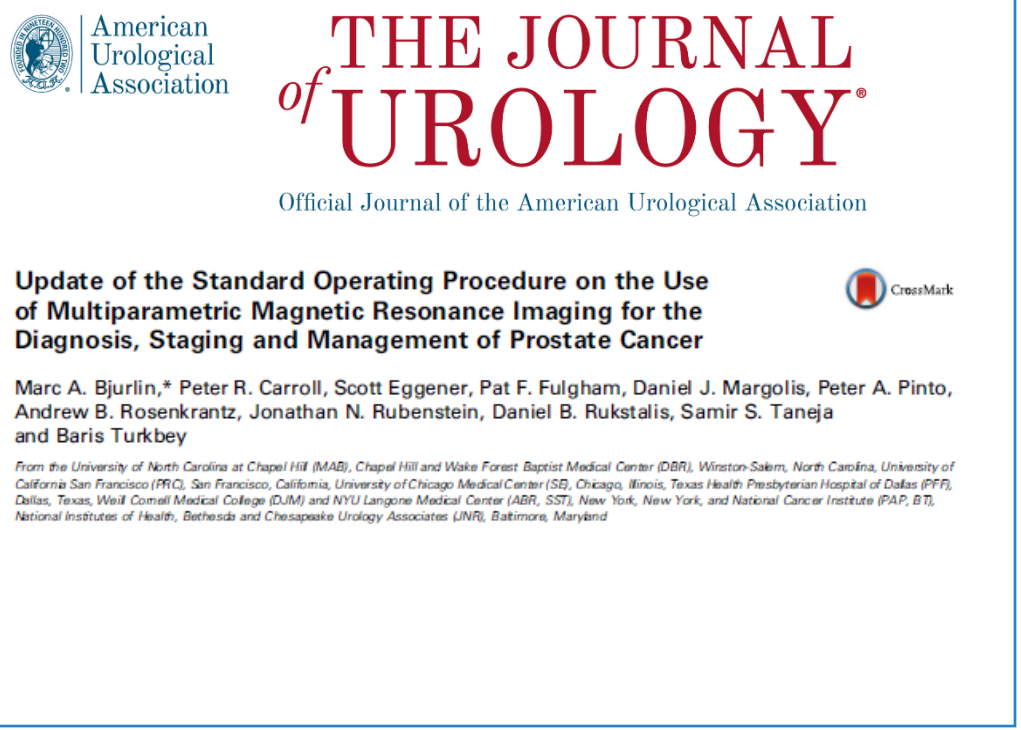
MRI use in MUSIC

Prostate MRI in MUSIC



Can some patients with negative MRI avoid biopsy?

Current Guidelines



American Urological Association

THE JOURNAL of UROLOGY®

Official Journal of the American Urological Association

Update of the Standard Operating Procedure on the Use of Multiparametric Magnetic Resonance Imaging for the Diagnosis, Staging and Management of Prostate Cancer

Marc A. Bjurlin,* Peter R. Carroll, Scott Eggener, Pat F. Fulgham, Daniel J. Margolis, Peter A. Pinto, Andrew B. Rosenkrantz, Jonathan N. Rubenstein, Daniel B. Rukstalis, Samir S. Taneja and Baris Turkbey

From the University of North Carolina at Chapel Hill (MAB), Chapel Hill and Wake Forest Baptist Medical Center (DBR), Winston-Salem, North Carolina, University of California San Francisco (PRC), San Francisco, California, University of Chicago Medical Center (SB), Chicago, Illinois, Texas Health Presbyterian Hospital of Dallas (PFF), Dallas, Texas, Weill Cornell Medical College (DJM) and NYU Langone Medical Center (ABR, SST), New York, New York, and National Cancer Institute (PAP, BT), National Institutes of Health, Bethesda and Chesapeake Urology Associates (JNR), Baltimore, Maryland

American Urological Association

Guideline Statement 11

When the risk of clinically significant prostate cancer is sufficiently low based on available clinical, laboratory, and imaging data, clinicians and patients may forgo near-term prostate biopsy. (*Clinical Principle*)

Reasons to Avoid Biopsy

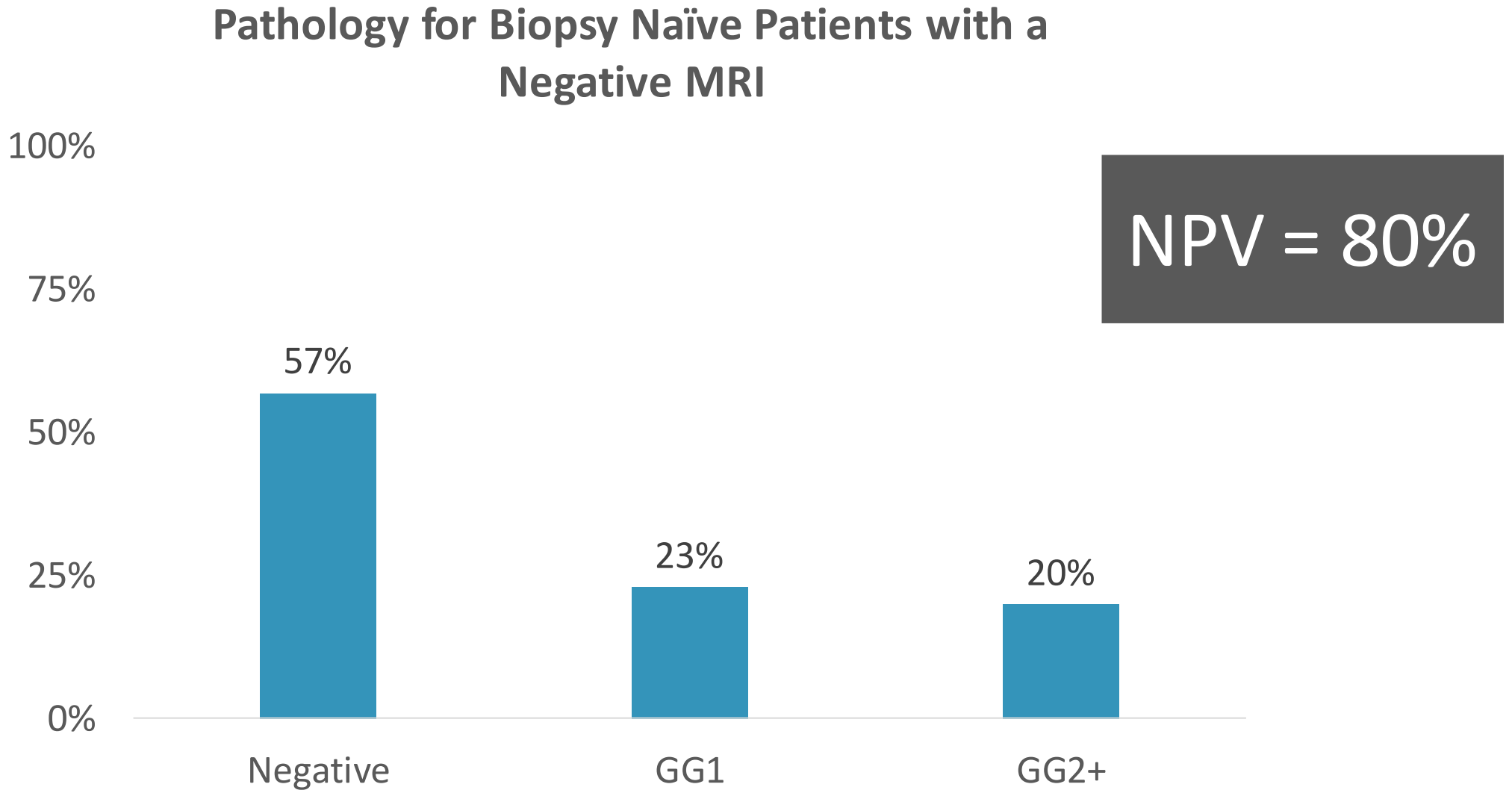
Pain

Sepsis

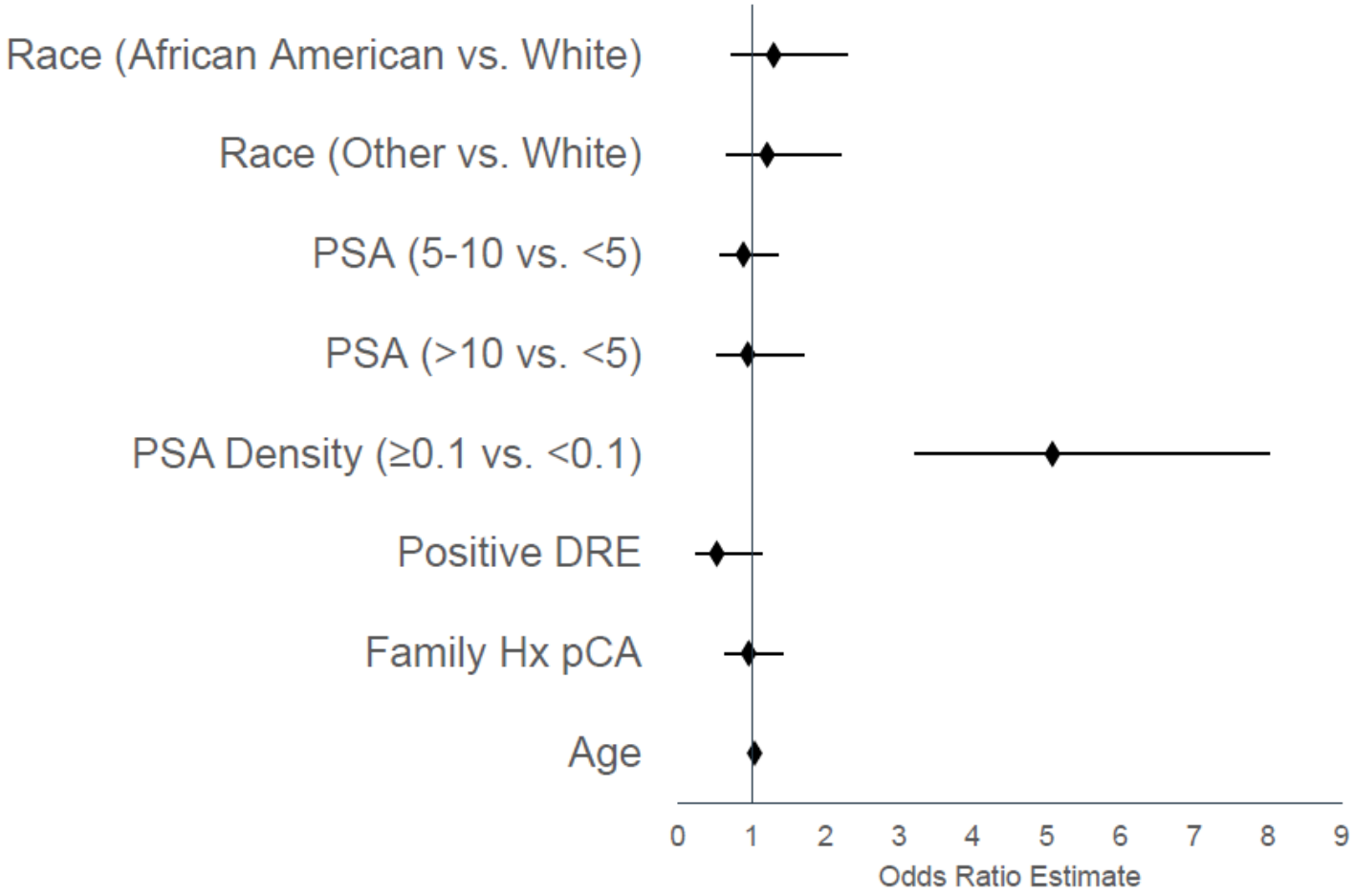
Anxiety

Cost

Negative Predictive Value of Prostate MRI in MUSIC



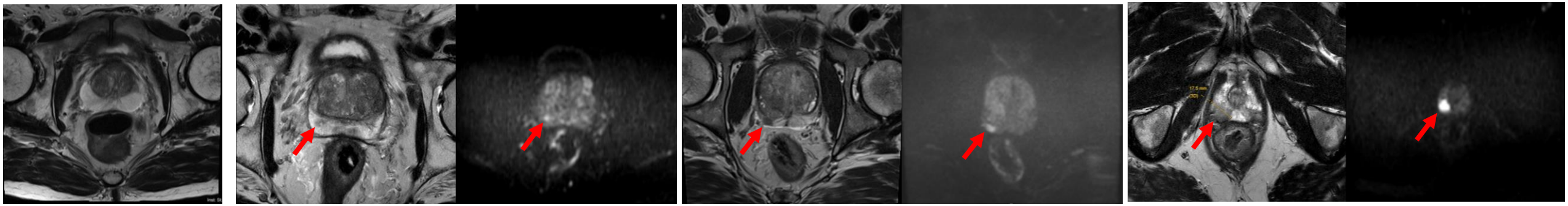
Factors Associated with ≥GG2 after Negative MRI



Definitions

- PSA density (PSAD)= PSA ÷ Prostate volume
- Negative Predictive Value:
  - The likelihood that a person who has a negative test result does NOT have the disease being tested
- PIRADS = Prostate Imaging Reporting & Data System

PIRADS 1-2 PIRADS 3 PIRADS 4 PIRADS 5



Who can avoid a biopsy?

Biopsy Naïve

Prior Negative Biopsy

HGPIN/ASAP

Active Surveillance

Biopsy Naïve Patients

slido

In general, do you perform a biopsy in men with elevated PSA (4-10) and PIRADS ≤ 3 with no prior biopsy?

ⓘ Start presenting to display the poll results on this slide.

Biopsy Naïve Summary

PIRADS 1-2 → **+ PSAD ≤ 0.15** → **NPV = 89%** →

NPV = 80%

PIRADS 3 → **+ PSAD ≤ 0.15** → **NPV = 77%** →

NPV = 70%

Prior Negative Biopsy

slido

What additional testing do you perform after prior negative prostate biopsy (without prior MRI)?

ⓘ Start presenting to display the poll results on this slide.

Prior Negative Biopsy Summary

PIRADS 1-2 → **+ PSAD ≤ 0.15** → **NPV = 89%** →

NPV = 84%

PIRADS 3 → **+ PSAD ≤ 0.15** → **NPV = 89%** →

NPV = 84%

HGPIN/ASAP

slido

What additional testing do you use if initial biopsy showed multifocal HGPIN/ASAP?

ⓘ Start presenting to display the poll results on this slide.

Current Guidelines

American Urological Association

Guideline Statement 27

In patients with multifocal HGPIN, clinicians may proceed with additional risk evaluation, guided by PSA/DRE and mpMRI findings. (*Expert Opinion*)

American Urological Association

Guideline Statement 28

In patients with ASAP, clinicians should perform additional testing. (*Expert Opinion*)

HGPIN/ ASAP Biopsy Summary

PIRADS 1-3 → **+ PSAD ≤ 0.15** → **NPV = 92%** →

NPV = 92%

Active Surveillance

slido

Do you routinely perform a biopsy for men with GG1 disease on AS that have a negative MRI (PIRADS ≤ 2)?

ⓘ Start presenting to display the poll results on this slide.

Surveillance Biopsy Summary

PIRADS 1-2 → **+ PSAD ≤ 0.15** → **NPV = 87%** →

NPV = 80%

PIRADS 3 → **+ PSAD ≤ 0.15** → **NPV = 75%** →

NPV = 69%

When should we omit biopsy?

MUSIC Recommendation

	Biopsies Avoided since May 2019	Undetected GG2+ Cancers	Undetected GG3+ Cancers
Bx Naïve **PIRADS 1-2 + PSAD ≤0.15**	**10%**	**1%**	**0.3%**

MUSIC Recommendation

	Biopsies Avoided since May 2019	Undetected GG2+ Cancers	Undetected GG3+ Cancers
Bx Naïve PIRADS 1-2 + PSAD ≤0.15	10%	1%	0.3%
Prior Negative Bx **PIRADS 1-3 + PSAD ≤0.15**	**24%**	**3%**	**0.5%**

MUSIC Recommendation

	Biopsies Avoided since May 2019	Undetected GG2+ Cancers	Undetected GG3+ Cancers
Bx Naïve PIRADS 1-2 + PSAD ≤0.15	10%	1%	0.3%
Prior Negative Bx PIRADS 1-3 + PSAD ≤0.15	24%	3%	0.5%
HGPIN **PIRADS 1-3**	**47%**	**4%**	**0%**

MUSIC Recommendation

	Biopsies Avoided since May 2019	Undetected GG2+ Cancers	Undetected GG3+ Cancers
Bx Naïve PIRADS 1-2 + PSAD ≤0.15	10%	1%	0.3%
Prior Negative Bx PIRADS 1-3 + PSAD ≤0.15	24%	3%	0.5%
HGPIN PIRADS 1-3	47%	4%	0%
Active Surveillance **PIRADS 1-2 + PSAD ≤0.15**	**13%**	**2%**	**0.1%**

MUSIC Recommendation

	Biopsies Avoided since May 2019	Undetected GG2+ Cancers	Undetected GG3+ Cancers
Bx Naïve PIRADS 1-2 + PSAD ≤0.15	10%	1%	0.3%
Prior Negative Bx PIRADS 1-3 + PSAD ≤0.15	24%	3%	0.5%
HGPIN PIRADS 1-3	47%	4%	0%
Active Surveillance PIRADS 1-2 + PSAD ≤0.15	13%	2%	0.1%
TOTAL	**13%**	**1%**	**0.3%**

Impact

Biopsies Avoided Each Year

000

Impact

Biopsies Avoided Each Year

217

Impact

Biopsies Avoided Each Year	Undetected GG2+ Cancers
217	0 0

Impact

Biopsies Avoided Each Year

217

Undetected GG2+ Cancers

25

Impact

Biopsies Avoided Each Year	Undetected GG2+ Cancers	Undetected GG3+ Cancers
217	25	0

Impact

Biopsies Avoided Each Year	Undetected GG2+ Cancers	Undetected GG3+ Cancers
217	25	5

Can Avoid Biopsy in Patients Who …

PIRADS 1-2 and PSAD ≤ 0.15

Closing Remarks

Khurshid Ghani, MD, MS, FRCS

ROCKS – Key Takeaways

- Stent omission in pre-stented patients leads to better outcomes
  - Higher stone free rates
  - Fewer postoperative ED visits
  - Less pain
  - Higher satisfaction

ASK

Don't put stents in patients who are pre-stented!

- No change in stenting rates for pre-stented patients despite QI efforts and financial incentives

ASK

- Pilot an interactive ROCKS Stenting Dashboard

Help us, get involved, and lets make data feedback meaningful

MUSIC CARES – Key Takeaways

- CARES is a peer support network for MUSIC members dealing with stressful times as a result of surgical complications
- MUSIC members can submit a confidential support request through the MUSIC CARES website
- Trained Peer Supporters will respond within 1 week

Spread the word!
Use it – we are here to help!!

KIDNEY – Key Takeaways

- Partial Nephrectomy video review completed with
  - 28 videos from 11 surgeons reviewed by 24 peer reviewers
- Higher scores associated with
  - Higher surgeon volume
  - Fewer post-op readmissions
  - Fewer positive surgical margins
- Second round coming soon

ASK

Take part – provide videos and be a reviewer!

ASK

Lets learn how to improve technical aspects of PN and help patients

Prostate – Key Takeaways

- New Imaging Appropriateness Criteria and PSMA PET EMR template now available

ASK

Avoid a biopsy in certain patients by getting an MRI and PSAD

- Following prostate MRI, biopsy can be avoided in
  - **Biopsy naïve patients with PIRADS 1-2 and PSAD ≤ 0.15**
  - Prior negative biopsy patients with PIRADS 1-3 PSAD ≤ 0.15
  - Prior HGPIN patients with PIRADS 1-3
  - Active surveillance patients with PIRADS 1-2 and PSAD ≤ 0.15

- This would avoid >200 biopsies per year

YES, **YOU** CAN MAKE A BIG DIFFERENCE

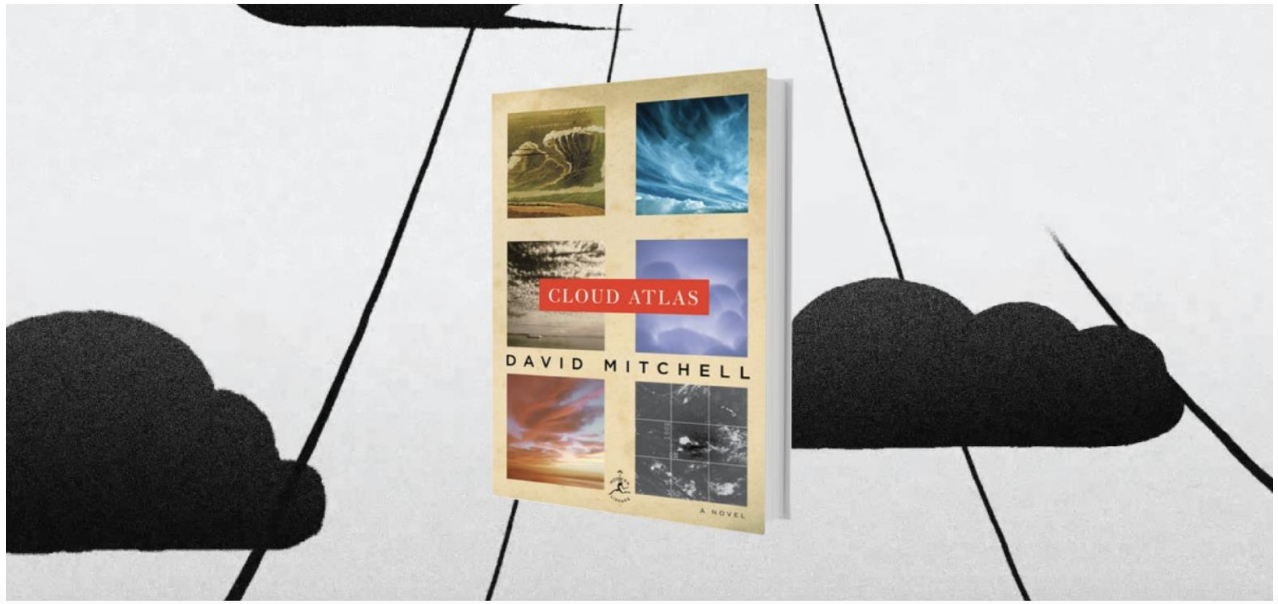
Bill Gates on CLOUD ATLAS (by David Mitchell)

A LOT O' TRUE

A wonderful, mind-bending novel

Cloud Atlas is a touching and very clever story about moral choices.

By **Bill Gates** | May 18, 2020 • 3 minute read



"Cloud Atlas is a wonderful book that is hard to describe. I can tell you that it is a touching and clever novel about moral choices.

It explores how self-centered and bad people can be, but also how supportive and good people can be."

CLOUD ATLAS – the movie

"And for What, For What?

No matter what you do it will never amount to anything more but a single drop in a limitless ocean.

...But what is an ocean but a multitude of drops."

Future MUSIC Meetings - Save the Dates!

September 20

ROCKS Skills Webinar

Virtual

October 20

Collaborative-Wide

Lyon Meadows Conf Center

New Hudson, MI

THANK YOU!

MUSIC Urologists, Abstractors, Administrators, Patient Advocates

BCBSM Value Partnerships Program

@MUSICUrology