

# **Collaborative-Wide Meeting**

May 9, 2025



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



# Welcome

Khurshid Ghani, MD, MS, FRCS



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

## Agenda



- Welcome & General Updates
- Reports Redesign
- Prostate Active Surveillance: State of the State
- ROCKS Exploring Practice
   Patterns for Pre-operative Urine
   Testing and Antibiotic Use for
   USR in Michigan: Can We Impact
   Infectious Hospitalizations?

- KIDNEY Proposed Clinical Trial of Renal Mass Biopsy before Surgery for 3-7cm Masses
- Lunch
- **BPH** Droppin' the BASS: Kicking Off the Future of BPH Treatments



## Welcome Members and Guests!



- New Members
  - University of Florida
- New MUSIC Staff
  - Lily Zamora
- BCBSM Partners
  - Faris Ahmad, MD

- Patient Advocates
  - Doug Adams
  - Craig Bloch
  - David and Kay Bueby
  - Walter Krell
  - Michael Little
  - Chip Ostermeyer
  - Dennis Sitek

#### **MUSIC Webinar: Thank You CARES Team!**







#### **Beyond the Operating Room:** Tools and Techniques for Managing Adverse Events





Clinical Psychologist Senior Lecturer in Psychology *Bournemouth University* 



#### GITA PENSA, MD

Adjunct Associate Professor Department of Emergency Medicine Warren Alpert School of Medicine, Brown University



MUSIC CARES

#### PHILLIP PIERORAZIO, MD

Chief of Urology Penn Presbyterian Medical Center University of Pennsylvania



#### AUA 2025: Thank You Presenters and Authors! —





KIDNEY













## Making an IMPACT: One Weekend in April



#### Michigan provider data offers direction for kidney cancer surveillance

Beyond AUA, NCCN and EAU guidelines, Michigan urologist data provides consensus for optimizing renal cancer surveillance.

#### G X Ø III ⊠



# SOUL Trial reveals clear patient preference: Skip the stent after ureteroscopy

Stent omission reduces pain and health care utilization postsurgery.

#### 



#### JAMA Oncology | Original Investigation

#### Trends in Surgical Overtreatment of Prostate Cancer

Steven M. Monda, MD, MSCI; Timothy Demus, MD; Salvador Jaime-Casas, MD; Sabir Meah, MS; Arnav Srivastava, MD, MPH; Richard Sarle, MD; Corinne Labardee, MPH; Khurshid R. Ghani, MD; Kevin M. Ginsburg, MD; Todd M. Morgan, MD; Tudor Borza, MD, MS

#### + Supplemental content

IMPORTANCE Overtreatment of prostate cancer is a public health concern that undermines prostate cancer screening efforts.

OBJECTIVE To assess trends in pathologic grade on prostatectomy during the past 2 decades as a surrogate for overtreatment.

DESIGN\_SETTING\_AND PARTICIPANTS This retrospective cohort study examined the grade of prostate cancer on final pathology reports among patients undergoing prostatectomy between January 1, 2010, and September 1, 2024, in 2 parallel cohorts: Surveillance, Epidemiology, and End Results (SEER), a nationwide cancer registry, and Michigan Urological Surgery improvement Collaborative (MUSIC), a statewide clinical registry. The presence of higher-risk features among patients who underwent grade group 1 prostatectomy during this period was also assessed.

EXPOSURES The primary exposure of interest was year of radical prostatectomy.

MAIN OUTCOMES AND MEASURES The primary outcome was the proportion of all prostatectomies that were pathologic grade group 1 (pGGI) on final pathology reports. The secondary outcome was the proportion of pGGI prostatectomies with a higher-risk preoperative feature, assessed as a binary variable and including at least 1 of the following: more than 50% of biopsy cores positive, prostate-specific antigen of 10 ng/mL or higher, or grade group 2 on biopsy.

RESULTS A total of 162 558 male patients in SEER (median 10(R) age, 63 157-671 years) and 23 370 in MUSIC (median 10(R) age, 64 159-69) years) underwent prostatectomy. The proportion of radical prostatectomies resulting in pGG1 on final pathology reports decreased from 32.4% (S852 of 18 071) to 7.8% (978 of 12 500) between 2010 and 2020 in SEER and from 20.7% (63 of 401) to 2.7% (23 of 125 Dot) between 2012 and 2024 in MUSIC. A more recent prostatectomy was associated with a lower likelihood of a pGG1 prostatectomy while controlling for age and are within SEER (odds ratio 10R) per 5 years, 0.41; 95% C1, 0.40–042; P < .001) and MUSIC (OR per 5 years, 0.39; 95% C1, 0.36–043; P < .001). Within a subset analysis of those prostatectomies that were final pGG1, a more recent prostatectomy with the presence of a higher-risk properative feature, including more than 50% of biopsy cores positive, prostate-specific antigen of 10 ng/mL or higher, and grade group 2 on prior biopsy within SEER (07 < .001) and MUSIC (07 < .001) and MUSIC (08 < .001)

CONCLUSIONS AND RELEVANCE This cohort study found that since 2010, the frequency of pGGI prostatectionnies markedly decreased, and those few that were performed were more likely to have a higher-risk feature. This reduction in the proportion of prostatectomies that are pGGI likely reflects improved diagnostic pathways, adherence to active surveillance protocols for low-risk cases, and ongoing efforts at both the state and national levels to minimize unnecessary surgical interventions in patients diagnosed with clinically insignificant prostate cancer.

Author Affiliations: Department of Urology, University of Michigan, Ann Arbor (Wonda, Meah, Srivastava, Labardee, Ghan, Morgan, Borza); Department of Urology, Sparrow Health System, Lansing, Michigan (Demus, Sarle): Department of Medical Oncology, City of Hope Comprehensive Cancer Center, Duarte, Californic Jaime-Casas); Department of Urology, Wayne State University, Detroit, Michigan

## Making an IMPACT



Research

#### JAMA Oncology | Original Investigation

#### **Trends in Surgical Overtreatment of Prostate Cancer**

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Supplemental content



# Value Based Reimbursement (VBR)



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# 2026 (payout) VBR -



Performance Measure	Measurement Level	Baseline Performance	Target Performance
Prostate: Active Surveillance Follow-Up		87%	≥ 89%
<b>ROCKS:</b> Post-URS Ureteral Stent Duration ≥5 days	ation ≥5 days Collaborative-wide		≥ 87%
KIDNEY: Active Surveillance Follow-Up		28%	≥ 34%
Prostate: Post-RP PSA		MUSIC 89%	≥ 92%
ROCKS: PRO Enrollment	PRACTICE		≥ 75%
<b>KIDNEY</b> : Opioid-limited Partial and Radical Nephrectomy		мизіс 52%	≥ 43%
Smoking Cessation: Counseling       Collaborative-wide         Smoking Cessation: Quitting       Collaborative-wide		82%	≥ 85%
		36%	≥ 40%



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# 2026 (payout) VBR -



	Performance Measure	Measurement Level	Baseline Performance	Target Performance
Prostate	Activo Survaillanco Fallow Un		070/	<u>&gt; 00%</u>
ROCKS:	Collaborative m	nust meet 2 of	3	%
KIDNEY:	Active Surveillance Follow-Up		28%	≥ 34%
Prostate	: Post-RP PSA		MUSIC	≥ 92%
ROCKS:	<u>PRACTICES</u> mເ	ust meet 1 of 3	3	%
KIDNEY: Nephrec	tomy		52%	≥ 43%
Smoking	Collaborative m	nust meet 2 of	2	%
Smoking			%	
				Blue Cross Blue Shield Blue Care Network

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## 2027 (payout) VBR -



Performance Measure	Measurement Level	Baseline Performance	Target Performance
Prostate: Post-RP Annual PSA Follow Up	Collaborative-wide	74%	≥ 77%
<b>ROCKS:</b> Post-URS Infectious Hospitalization		2.5%	≤ 2.3%
Prostate: Active Surveillance Follow Up	DDACTICE	MUSIC 91%	Practice-specific
<b>ROCKS:</b> Post-URS Stent Duration	PRACIICE	MUSIC 87%	Practice-specific
Smoking Cessation: Counseling	Collaborativo wido	74%	≥ 85%
Smoking Cessation: Quitting	Collaborative-wide	33%	≥ 40%



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## 2027 (payout) VBR







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## 2026 & 2027 VBR Participation: Physician-Level —



To earn VBR rewards, each PHYSICIAN must

- Do at least 1 of the following for the 2026 VBR (from 7/1/24-6/30/25)
- Do at least 2 of the following for the 2027 VBR (from 7/1/25-6/30/26)
- 1) Attend a collaborative-wide meeting
- 2) Attend a skills workshop
- 3) Attend your MUSIC site visit
- 4) View your reports in the registry



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#### Leadership Updates – NEW CO-DIRECTORS -





**Tudor Borza** MUSIC Co-Director



Casey Dauw MUSIC Co-Director

## Leadership Updates – BPH PHYSICIAN LEADERS





**Wilson Sui** BPH Director University of Michigan



**John DiBianco** BPH Co-Director University of Florida



**Sabry Mansour** BPH Co-Director Urology Specialists of Michigan



Jay Lonsway BPH Physician Lead Western Michigan Urological Associates

## **THANK YOU MUSIC Coordinating Center TEAM !**







Susan Linsell



Anna Johnson



Corinne Labardee



Jerison Ross



Mahin Mirza



Rabia Martin



Becki Avedisian

Amiya Alexander



Lily Zamora



Elaina Shoemaker



Sabrina Clark



Erik Sucher



Rod Dunn



Stephanie Daignault-Newton



Sabir Meah



**Caitlin Seibel** 



Dr. Golena Fernandez



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



# **Reports Redesign**

Rod Dunn, MS



# **The State of the State:** Active Surveillance for Prostate Cancer

Tudor Borza, MD, MS

#### Prostate Agenda -





Current surveillance patterns in MUSIC



Surveillance and oncological outcomes of current patterns







1. Loeb, et al. Eur Urol 2015;67:233-38 2. Klotz, et al. J Clin Oncol 2015;33:272-77 3. Newcomb, et al. J Urol 2015;195:313-320 4.Welty, et al. J Urol 2015; 193-807-811 5. Hamdy, et al. NEJM 2023, 388:17

#### **Next Steps for Active Surveillance**





#### Creation of Actionable "Roadmap"





#### Who Should Go on Active Surveillance







60

#### 90% of Low-Risk Patients on AS —





#### A Third of Men with Grade Group 2 on AS



#### **One Quarter of Patients Treated by 5 Years**



#### 5-Year Treatment Rates Higher in Grade Group 2 Patients –





#### How Should Active Surveillance Be Done? –

#### **High-Intensity Surveillance Plan**

Diagnosis	Confirmatory Test	Surveillance Phase	
PSA		Obtain every 6 months	Continue until deterioration in health or age or change in patient preferences
DRE		Obtain every 6 months	
Tumor Burden Reassessment*+ (Biopsy or MRI)	Obtain test(s) within 6 months of Diagnosis	Obtain every 12 months	

#### Low-Intensity Surveillance Plan

Diagnosis	Confirmatory Test	Surveillance Phase	
PSA		Obtain every 12 months	Continue until deterioration in health or age or change in patient preferences
DRE		Obtain every 12 months	
Tumor Burden Reassessment* (Biopsy or MRI)	Obtain test(s) within 6 months of Diagnosis	Obtain at least once every 3 years	







# Who is getting a biopsy every year on most of their patients?

Show of hands!





# How often are we doing these compared to what the MUSIC Roadmap recommended?

#### **Frequency of PSAs for Low and Intermediate Risk Patients**



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#### **Frequency of PSAs for Low and Intermediate Risk Patients**



Michigan Urological Surgey Michigan Urological Surgey

## **Frequency of Biopsy or MRI Testing**



#### (Tumor Burden Reassessment)


### **Frequency of Biopsy or MRI Testing** (Tumor Burden Reassessment)





### Variation in Tumor Burden Reassessment at 3 Years 100% Total Eligible **AS** Patients AS Patients Receiving Any TBA in 3 Years MUSIC Mean = 68.2% 75% 50% 25% 0%

19 20 21 22 23 24 25 26 27 28 29 30 31 Practice



## We've Deviated from the MUSIC Roadmap

What are the implications?

What Are the Implications of How We're Doing Surveillance Currently?



### Can we rely on PSA?

### When do we NEED a surveillance biopsy?

### What Do You Miss When You Skip a Biopsy? -



### **The Prostate**

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



### For Cause

- PIRADS 4/5 lesion
- Rise in PSA >3 ng
- PSA velocity >0.75
- Change in DRE



### Per Protocol

Not meeting any of these criteria

### **Occult Cancer Occurs**





### **Occult Cancer Occurs**





### **MRIs Are Great** -









### What is the right cadence?

# Patients should have a biopsy in the **first 3 years** of surveillance



### Metastasis and death are too rare in MUSIC

### Biochemical Recurrence (BCR) and Persistently Positive (PP) cases will help tell the story

### **5-Year BCR Incidence Post-RP** -











### Active Surveillance is safe

### How we do Active Surveillance in 2025 is different than what we intended in 2015

We still need to improve the quality of Active Surveillance

Extreme variation exists

We can't skip biopsies

Our data has taught us we need a new AS roadmap

### Let's Discuss!



# Who should be on active surveillance?

How should we follow low and high-risk active surveillance patients?

What other information are you wanting about active surveillance?

Who should be low / and high-risk?



### Exploring Practice Patterns for Pre-operative Urine Testing and Antibiotic Use for URS in Michigan: Can We Impact Infectious Complications?

Casey Dauw, MD

Suprita Krishna, MD

### **Questions to Answer Today** –





What is the burden of infection-related complications after ureteroscopy?



Are current guidelines meeting the needs of everyday practice?



What are the risk factors for sepsis after ureteroscopy?



How do we employ pre-operative urine testing and antibiotic use in Michigan?



What are next steps to address infectious hospitalizations?

### **The Potential Impact of Hospitalizations in USA**





An estimated **750,000** – 1,000,000 ureteroscopies are performed each year

**5%** of these patients are re-admitted

6% for infectious complication

 $\approx$  **3,000** Patients

### Infection-related hospitalizations impact thousands each year

Bhojani, et al. "Sepsis Prevalence and Associated Hospital Admission and Mortality after Ureteroscopy in Employed Adults." BJU International, 2023

### **MVC Claims Data: Post-op 30-Day Hospitalization Rate**





### **Hospitalizations** < **30 Days After Ureteroscopy** -



**MUSIC** Data

### Hospitalizations

# 2.8%

## Infection-related hospitalizations

**58%** occur within

the first 7 days

18



## Where do we go from here?



### Patient Scenario: What Would You Do? -



### **Patient characteristics**



### 8 mm kidney stone











Asymptomatic bacteriuria on urine culture



### **AUA Guidance on Antimicrobial Prophylaxis**





Surgical Management of Stones: Urological Association AUA/Endourology Society Guideline (2016)

Antimicrobial prophylaxis should be guided by...



What do the antimicrobial best practice guidelines say?

Assimos, Dean, et al. "Surgical Management of Stones: American Urological Association/Endourological Society Guideline, PART I." The Journal of Urology

### **Best Practice Guidelines: Statement 16** -





### Urologic Procedures and Antimicrobial Prophylaxis (2019)



"The significance of colonization is variable"

Lightner DJ, Wymer K, Sanchez J et al: Best practice statement on urologic procedures and antimicrobial prophylaxis. J Urol 2020; 203: 351.





### Infectious Diseases Society of America (IDSA) Guidelines







In patients with asymptomatic bacteriuria who will undergo a urologic procedure, we suggest a short course (1 or 2 doses).

#### Limitations:

**IDSA** asymptomatic bacteriuria **guidelines do not account for** the unique **sepsis risks of ureteroscopy.** Only 10 ureteroscopy cases were included in cited studies.

2. Selda Sayin Kutlu ZA, Koray Tekin, Demet Okke, Serife Akalin, Serkan Altintas MD. Is short course of antimicrobial therapy for asymptomatic bacteriuria before urologic surgical procedures sufficient? J Infect Dev Ctries. 2012.

<sup>1.</sup> Chong JT, Klausner AP, Petrossian A, Byrne MD, Moore JR, Goetz LL, Gater DR, Grob BM. Pre-procedural antibiotics for endoscopic urological procedures: Initial experience in individuals with spinal cord injury and asymptomatic bacteriuria. J Spinal Cord Med

### **Tackling Infectious Hospitalizations After URS**







## Who Is At Risk For Sepsis?

### **Risk Factors for Infection After Ureteroscopy**



<b>Current literature</b>	<b>MUSIC registry</b>
Increasing age	Stone Location (Kidney)
Diabetes	Diabetes
Ischemic heart disease	Female Gender
Pre-stented	Pre-stented
Procedure Time	Recurrent UTI
	Post-Op Stent
Positive Pre-Op Urine	Positive Pre-Op
Culture	Urine Testing



14%

Of patients have a **sepsis event** within **6 months prior to** ureteroscopy



Bhojani N, et al., J Endourol. 2021



## What Can We Influence?

- 1. Pre-operative Urine Testing
- 2. Appropriate Use of Antibiotics



### **Pre-op Urine Testing: What Do the Guidelines Say?** -





### **2016** Preoperative Urine Testing Guidelines



Urinalysis (UA) only (most patients)



### Urine culture (UC) (if signs of infection)

### The Use of Pre-op Urinalysis Only is Highly Variable





### How Many Patients Receive Pre-op UA, UC or Both? MUSIC Data 10% of patients do not have pre-operative urine testing N=1,553





### **Pre-op Urine Testing Patterns in MUSIC**



## **Case Scenario:** Patient with an asymptomatic kidney stone undergoing elective ureteroscopy



### **Summary: Pre-operative Urine Testing**





AUA Guidelines indicate that urinalysis only is acceptable for most patients.



There is wide variability across MUSIC regarding urinalysis only as the pre-op test of choice.



In MUSIC, UTI rates do not significantly differ based on the type of preoperative testing used



## **Antibiotic Treatment**

Suprita Krishna, MD
# **MVC Claims Data: Antibiotic Prescription Fill Rates** –



**MVC Hospitals** 



#### **Prescribing Patterns for Asymptomatic Bacteriuria** – Case: Patient with a renal stone and Asymptomatic Bacteriuria (ASB) 4 weeks before surgery. All prior urine tests are negative. 21% N=66 80% 76% 71% 70% 60% 50% 40% 29% 30% 20% 14% 10%

0% Pre-Operative Peri-Operative Post-Operative Antibiotics now No Antibiotics Antibiotics Antibiotics Antibiotics (Leading up to (Day of Procedure) (After the Procedure) Procedure)

# **Antibiotic Duration for ASB**



**Case:** Patient with a renal stone and **Asymptomatic Bacteriuria (ASB)** 4 weeks before surgery. All prior urine tests are negative.





# **Intraoperative Factors that Influence Antibiotic Decisions**

"In patients with **negative pre-operative urine testing**, what **intra-operative findings or features** influence your decision to prescribe post-operative antibiotics?"







Antibiotics were prescribed in 32% of cases *pre*-operatively and 41% *post*-operatively, with substantial variation observed in post-operative prescribing patterns.



Survey responses highlight variation in both *pre-* and *post-*operative antibiotic decision making and treatment duration among MUSIC urologists.



Even with negative pre-operative urine culture, clinicians report relying on additional patient and intra-operative factors to guide antibiotic prescribing.



# Targeted Approach to Reduce Infectious Complications

#### **Delphi Panel**

"Expert based consensus used as a substitute for empirical evidence when it does not exist"

### What is a Delphi Panel?





Based on initial opinions

Based on revisions from first round

Final responses gathered

# **Antibiotic Stewardship**

Each year, an estimated 7.7 million deaths are associated with bacterial infections

7.7m

annual deaths



with antimicrobial resistance (AMR)

#### 1.27m

of which are caused by bacterial pathogens resistant to the antibiotics available to treat them



Antimicrobial resistance: an agenda for all The Lancet, 2024

## 36 Delphi Panelists – Thank You!





### **Future State of Infection After URS in Michigan**







# **Proposed Trial: Biopsy Before Surgery in 3-7cm Renal Masses**

Craig Rogers, MD Kristian Stensland, MD, MPH

### **MUSIC's Efforts: Optimizing Renal Mass Biopsy** -





### **Utilization of Renal Mass Biopsy by PN and RN**

# Wide Practice Level Variation in Renal Mass Biopsy -





# Renal Biopsy for Masses ≤7cm Can Impact Rx Choice





#### **Biopsy for 4-7cm Masses Show Less**



# **Total Nephrectomy**



# Renal Biopsy: ~20% Benign, Low-Risk Procedure





### **Histopathologic findings**

18% (n=147) Benign

4.8% (n=38) Indeterminate

"Oncocytic neoplasm not otherwise specified"



#### **RMB complications**

3% (n=25) ED visit rate ~1% (n=7) Hospital admissions

#### **Dr. Kristian Stensland** -





• Urologist at UM and Ann Arbor VA with a research interest in implementation science and clinical trials.

# Is There a Benefit to Renal Mass Biopsy? -





Only retrospective data available



Unclear which patients are best suited for renal mass biopsy



Limited "real world" pathology and outcomes data



Patient perspective unknown



Barriers to renal mass biopsy poorly defined

### **Patient Advocates: Kidney Cancer Association**





John Ferrell



Rose Ramey



Jeff Kallis



Peggy Zuckerman

### **Patient Perspective on Renal Mass Biopsy**



- Small renal mass concerning for RCC potentially clear cell type on CT and MRI
- Biopsy confirmed chromophobe RCC
- Elected surgery; robotic PN





Would you be willing to include patients on a study that randomizes patients to renal mass biopsy vs. no biopsy for a 3-7 cm mass?

(i) The <u>Slido app</u> must be installed on every computer you're presenting from



# **Clinical Trial Proposal to PCORI** —



Aim 1	Aim 2	Aim 3
Compare the effectiveness of RMB vs. omission prior to surgery for <b>3-7 cm</b> renal masses (RCT).	Perform a real-world assessment of outcomes in non- randomized patients undergoing RMB vs omission.	Understand decisions and preferences around RMB using a concurrent mixed methods approach.

# **Renal Mass Biopsy Clinical Trial Study Design**





# **Potential Impact of Renal Mass Biopsy Clinical Trial**





#### **Next Steps**

- Are you interested participating?
- Contact the MUSIC KIDNEY team for more information.









# Discussion

# **Concerns about RMB**



- Do you think this study is of value?
- Would you enroll patients?
- What concerns do you have about RMB at your site?
  - Obtaining RMB:
    - Access, reliability of I.R., reliability of path
  - Surgery / management after RMB Delay patient's care?
    PN more difficult afterwards?



# LUNCH



# **Droppin' the BASS: Kicking Off the Future of BPH Treatment**

Wilson Sui, MD Sabry Mansour, MD John Michael DiBianco, MD Jay Lonsway, DO



# **BASS: <u>BPH</u> <u>Advances in <u>Surgical</u> <u>Services</u>**</u>



Dr. Wilson Sui

**Dr. Sabry Mansour** 

Dr. John Michael DiBianco

**Dr. Jay Lonsway** 

### Thank You To Our Advocates! —





**Prof. Walter Krell** 

Mr. David Bueby

Mr. Chip Ostermeyer







#### Part 1. Pilot program



#### Part 2. Variation in technique, consistent data



Part 3. Where we hope to go

### **Goals for the Session**






# Part 1. A Common Problem

#### >600k Men Over 65 Every Year Diagnosed with BPH







## **Prof. Walter Krell**



#### **Presentation**

 ~60 yoM with medication refractory, progressive bothersome LUTS

#### **Objective**

- 110g on CT
- Cysto/Urocuff: none
- PVR: 20cc

#### **Primary concerns:**

- Weak stream, frequency, urgency
- No ED concerns

#### **PROs**

Not obtained

**Operative course:** smooth HoLEP and discharged POD1 after passing 3 trial of voids

• All seemed to be going well...



#### ED Visits Post-BPH Procedures are Common





## ED Visits and Readmission are High Regardless of BPH Procedure

**30-day ED visit and readmission rates after BPH procedure** 







#### Real-world Patient Experience Rezum

	PUL Group 0-3 Mos	
	No. Events	No. Subjects (%)
Serious AEs	9	7 (5.0)
Related seriasAE	1	1 (0.7)
All AEs	268	122 (87.1)
Related AFc	203	113 (80 7)
Dysuria		48 (34.3)
Hematuria		36 (25.7)
Pelvic pain/discomfort		25 (17.9)
Urgency		10 (7.1)
Bladder spasm		5 (3.6)
Urge incontinence		5 (3.6)
Urinary tract infection		4 (2.9)
Retention		1 (0.7)
Erectile dysfunction		0 (0)
Retrograde ejaculation		0 (0)

. . . .

	Thermal Treatment Group 0—3 Mos		
	No. Events	۱ Sut (	No. ojects %)
Serious AEs Related serious AEs	8 3	7 2	(5.1) (1.5)
All nonserious AEs Related AEs:	164 138	59 52	(43.4) (38.2)
Dysuria Hematuria, gross	23 16	23 16	(16.9) (11.8)
Hematospermia Urinary frequency	10 8	10 8	(7.4) (5.9)
Urinary urgency Decrease in ejaculatory	8 4	8 4	(5.9) (2.9)
Urinary retention	5	5	(3.7)
UTI, suspected Anejaculation Epididymitis UTI, culture	6 4 4 4	5 4 4 4	(3.7) (2.9) (2.9) (2.9)
Pain/discomfort, pelvic	4	4	(2.9)

Table 5. Summary of adjudicat

 Table 2. Events at month 3 categorized by Clavien-Dindo

 grades by group as possibly, probably or definitely related to

 procedure and/or device

Aqua

	No. Advers Pts	e Events/No. (%)	
Clavien-Dindo	Aquablation	TURP	p value (Fisher test
Grade 1:	63/39 (33.6)	41/27 (41.5)	0.3350
Bladder spasm	3/3	1/1	1.0000
Bleeding	12/11	7/7	0.7995
Dysuria	12/12	5/5	0.7912
Pain	5/5	3/3	1.0000
Retrograde ejaculation	8/8	16/16	0.0012
Urethral damage	1/1	1/1	1.0000
Urinary retention	11/9	4/4	0.7730
Officiary tract infection	2/2	0/0	0.5371
Urinary urgency, frequency,	4/4	1/1	1.0000
difficulty, leakage	E /E	2/2	1 0000
Uther	5/5	3/3	1.0000
Bladder anorm	20/19 (10.4)	2/2	1.0000
Bladder spasm	4/4	2/2	1.0000
Bieeaing	1/1	0/0	1.0000
Dysuria	0/0	1/1	0.3591
Pain Using the stant infection	1/1	Z/Z	0.2932
Urinary tract infection	9/9	5/5	1.0000
difficulty, leakage	2/2	3/2	0.6191
Other	3/3	2/2	1.0000
Grade 3a:	4/4 (3.4)	2/2 (3.1)	1.0000
Bleeding	1/1	1/1	1.0000
Urethral stricture or adhesions	3/3	1/1	1.0000
Grade 3b:	3/3 (2.6)	3/3 (4.6)	0.6684
Bleeding	2/2	2/2	0.6191
Urethral stricture or adhesions	0/0	1/1	0.3591
Urinary retention	1/1	0/0	1.0000
Grade 4:	1/1 (0.9)	0/0	1.0000
Arrhythmia	1/1	0/0	1.0000

Table 3.	Overview of adjudicated adverse events

ITINID

		-		
		iTind Group 0-30 days		
		Events (n)	Subjects (n)	Subjects (%
	Serious AEs Related serious All AEs Related AEs	16 5 109 81	10 3 45 39	7.8 2.3 38.1 33 1
	Dysuria Hematuria		27 16	22.9 13.6
	Micturition urgency Pollakiuria		6 8	5.1 6.8
L	Urinary retention		7	5.9
	Urinary tract infection Sepsis Pain		2 1 1	1.7 0.8 0.8

What did this look like for the patient experience? Long waits in the ED? Urgent phone calls?



#### **The Foley Fugue** -



#### What brought you back to the ED after the first time?





#### **Urology-specific Reasons for ED Visits** -







#### **Initial Focus of Pilot Project**

**Current State:** 

ED Visits: ~13%



#### <u>Goal</u>:

Reduce modifiable ED visits



**Intervention**:

Identify reasons for ED visits

Determine which are

"modifiable"





# **Open Discussion**



# Part 2: Variation in Technique, Consistent Data

#### **Real World Opinion Versus X Perception**





#### Ilrologic 50,000 40,000 30,000 20,000 10,000 0 2012 2013 2014 2015 2016 2017 2018 2019 2021 2020 Transurethral resection of the prostate (TURP) - Laser prostatectomy - Laser enucleation

#### National Data – Resective BPH Procedures –



## MVC Data Reflects the Trend in Resective Procedures



**RESECTIVE BPH TRENDS** 



#### **Increased Use of Minimally Invasive Surgical Therapies** -



#### **MVC Data Reflects the Trend in MiST -**





#### **Unique Opportunity with MUSIC**



Evaluate physician practice patterns without bias Systematic collection of patient reported outcomes

Develop appropriateness pathways





#### **Regardless of Procedure: How Can We**



## **Evaluate Patients Objectively and Systematically?**



Objective: Comorbidities Medications Prostate size Uroflow/PVR

<u>Subjective:</u> Frequency Urgency Nocturia Ejaculatory Dysfxn





## Collect What We Need, Need What We Collect



- Voiding diary
- Periop Abx
- TXA
- Anesthesia Type
- Catheter size
- Catheter duration
- Outpatient vs Observation
- Postoperative medications
- Size assessment
- Shape

- Prior procedures
- Comorbidities
- Medications
- Routine PVR
- Routine UA
- Routine UCx
- Routine UDS
- Routine Uroflow
- Cross sectional imaging
- Routine Cystoscopy



## Are you getting a routine



# Rank these modalities in order you use most often





# Do you routinely do a cystoscopy prior to surgery?



#### **Unique Opportunity with MUSIC**



Evaluate physician practice patterns without bias Systematic collection of patient reported outcomes

Develop appropriateness pathways





# Part 3: Where We Hope to Go

#### **Urologist Perspective: What is Important?**

#### Rate of Reoperation within 180 Days Following Original BPH Surgery





## Are these the right metrics though? What do patient's care about? Is there a mismatch?



## Mr. David Bueby



#### **Presentation**

 ~60 yoM progressive LUTS who failed medical therapy

#### **Objective**

- 56g on TRUS
- Cysto: bilobar hyperplasia
- UROCUFF:
  - Total Voided Volume: 412.4 (ml)
  - Max Flow: 16 (ml/s)
- PVR: 168

#### **Primary concerns:**

- Weak stream, hesitancy and start/stop
- No ED concerns

#### **PROs**

• AUA-SI: 24

**Operative course:** uncomplicated office PUL



## Regardless of the Procedure: Patient Reported Outcomes Take Center Stage; How Can We Evaluate This?

**Treatment options** 



**Patient** 

Objective: Comorbidities Medications Prostate size Uroflow/PVR

Subjective: Frequency Urgency Nocturia Ejaculatory Dysfxn



#### **Outcomes**

Patient Satisfaction Quality of Life PVR, Qmax Reoperation REJ Incontinence

Please answer each question, thinking about the symptoms you have experienced in the last month You will see that some questions ask how often you have a symptom Occasionally = less than one third of the time Sometimes = between one and two thirds of the time Most of the time = more than two thirds of the time **Plethora of PROs** Please put a tick in one hox for each question V1 Is there a delay before you can start to urinate? never occasionally sometimes most of the time all of the time Do you have to strain to continue urinating  $V_{2}$ never ICIQ-UI Short Form (US English) occasionally LURN SYMPTOM INDEX-10 (LURN SI-10) sometimes CONFIDENTIAL DD Subject number Subject initial MMM YY most of the time all of the time Today's ( L. Instruction: This questionnaire asks you about different urinary sympto atio V3 question carefully, and then circle the response that best describes you Would you say that the strength of your urinary stream is. . SEXUAL HEALTH INVENTORY FOR MEN (SHIM)  $\square$ normal occasionally reduced sometimes reduced Nam reduced most of the time PATIENT NAME: TODAY'S DATE: reduced all of the time 4 few times wers and add up your scores at the bottom. Ve<sub>Ve</sub> mine V4 Do you stop and start more than once while you urinate PATIENT INSTRUCTIONS never occasionally Sexual health is an important part of an individual's overall physical and emotional well-being. Erectile dysfunction, sometimes 1. In the past 7 days, how often did you feel a sudden need most of the time also known as impotence, is one type of very common medical condition affecting sexual health. Fortunately, there 0 1 all of the time to urinate? Less About More are many different treatment options for erectile dysfunction. This questionnaire is designed to help you and your Almost doctor identify if you may be experiencing erectile dysfunction. If you are, you may choose to discuss treatment 2. In the past 7 days, how often did you leak urine or wet a V5 How often do you feel that your bladder has not emptied prop half the than half the than half 0 options with your doctor. erly after you have urinated pad after feeling a sudden need to urinate? always never occasionally the time time the time Each question has several possible responses. Circle the number of the response that best describes your own 3. In the past 7 days, how often did you leak urine or wet a sometimes 0 1 situation. Please be sure that you select one and only one response for each question. most of the time pad while laughing, sneezing, or coughing? all of the time 4. In the past 7 days, how often did you leak urine or wet a OVER THE PAST 6 MONTHS: ICSmaleVS: sum scores V1-V5 pad when doing physical activities, such as exercising or 0 Do you have to rush to the toilet to urinate? (II) **I**1 lifting a heavy object? 1. How do you rate your never 🗆 0 sionally 🗆 1 VERY HIGH VERY LOW Low MODERATE HIGH 5. In the past 7 days, how often did you have pain or occasionally confidence that you 0 sometimes 1 could get and keep an discomfort in your bladder while it was filling? most of the time erection? 1 2 3 4 5 all of the time 6. In the past 7 days, how often did you have a delay before A lot 0 1 Does urine leak before you can get to the toilet? you started to urinate? A FEW TIMES MOST TIMES I2 When you had SOMETIMES NO SEXUAL ALMOST NEVER (MUCH LESS (MUCH MORE never erections with sexual 7. In the past 7 days, how often was your urine flow slow or (ABOUT HALF ALWAYS OR occasionally ACTIVITY OR NEVER THAN HALF THE THAN, HALF THE stimulation, how often 0 ALWAYS THE TIME) 1 sometimes weak? TIME) TIME) were your erections hard most of the time 3 muc all of the time 4 enough for penetration 8. In the past 7 days, how often did you dribble urine just (entering your partner)? 0 5 0 1 2 3 4 1 roble 13 after zipping your pants or pulling up your underwear? Does urine leak when you cough or sneeze never 🗆 0 A FEW TIMES MOST TIMES occasionally 0 1 During sexual DID NOT SOMETIMES ALMOST Circle number here ---> intercourse, how often ALMOST NEVER (MUCH LESS (MUCH MORE sometimes ATTEMPT (ABOUT HALF ALWAYS OR most of the time OR NEVER THAN HALF THE THAN, HALF THE were you able to 3 NTERCOURS THE TIME) ALWAYS mu all of the time (3 or fewer (4-7 times maintain your erection TIME) TIME) 9. In the past 7 days, during waking hours, how many times after you had penetrated mes a day) a day) Do you ever leak for no obvious reason and without feeling that did you typically urinate? ause I4 (entered) your partner? 0 1 2 3 4 5 never 🗆 0 you want to go? occasionally  $\begin{bmatrix} 1 \\ 2 \\ 2 \end{bmatrix}$ Circle number here ---> 0 1 sometimes DID NOT During sexual most of the time EXTREMELY VERY SUGHTLY 10. In the past 7 days, during a typical night, how many ATTEMPT DIFFICULT NOT DIFFICULT intercourse, how difficult all of the time DIFFICULT DIFFICULT Bothers (none) (1 time) DIFFICULT TERCOURSI times did you wake up and urinate? was it to maintain your erection to completion of 15 Do you leak urine when you are asleep? me a lot ne intercourse? 3 5 never 0 1 2 4 occasionally sometimes 3 has most of the time A Few TIMES MOST TIMES DID NOT SOMETIMES Almost In the past 7 days, how bothered were you by urinary Not at all Somewha all of the time 5. When you attempted ALMOST NEVER (MUCH LESS (MUCH MORE ATTEMPT (ABOUT HALF ALWAYS OR symptoms? bothered bothered ne pa OR NEVER THAN HALF THE THAN, HALF THE sexual intercourse, how INTERCOURSE THE TIME) ALWAYS TG How often have you had a slight wetting of your pants a few minoften was it satisfactory TIME) TIME) utes after you had finished urinating and had dressed yourself All of never Most of for you? occasionally Пi 0 1 2 3 4 5 sometimes the time the most of the time he all of the time Add the numbers corresponding to guestions 1-5. TOTAL: ICSmaleIS: sum scores 11-16 time Office Use: (note: last question is an unscored global rating) The Sexual Health Inventory for Men further classifies ED severity with the following breakpoints: 3 Frequency How often do you pass urine during the day? muc Office Scoring: Questions 1-10: Sum of all responses x 10 / number of gues hourly every 2 hours 1-7 Severe ED 8-11 Moderate ED 12-16 Mild to Moderate ED 17-21 Mild ED ot you every 3 hours x10 / every 4 hours or more the kinds of things you would us Q 1-10 Sum # questions answered LURN SI-Nocturia During the night, how many times do you have to get up to urinate, © Copyright 2019 Version 1.1 one two three Thank you very much for answering these four or more QoL Overall, how much do your urinary symptoms interfere with not at all 🔲 0 your life a little Reprinted from Angalakuditi M, Seifert RF, Hayes RP, O'Leary MP, Vikru This is an Open Access article distributed under the terms of the somewhat Creative Commons Attribution License (https://creativecommons.org/licen a lot 🗋 3 ork is properly cited.

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## What PROs are you using now?




### Why are you using them?

(i) The <u>Slido app</u> must be installed on every computer you're presenting from



### A Work in Progress





### **Unique Opportunity with MUSIC**



### Evaluate physician practice patterns without bias

Systematic collection of patient reported outcomes



Develop appropriateness pathways

## **BASS Best Practices**

# Are there **PATHWAYS**?

### Making Sense of a Shifting Tide -



**ALL BPH PROCEDURES** 





### **Guidelines Oversimplify Treatment?**

Small



Patients concerned with preservation of erectile and ejaculatory funct	ion may be offered PUL or
WVTT as data indicate that both therapies provide a greater likelihoo	d of preservation of sexual
function.	

#### MEDICALLY COMPLICATED PATIENTS

In patients who are at higher risk of bleeding, such as those on anticoagulation drugs, therapies with a lower need for blood transfusion, such as HoLEP, PVP, and ThuLEP, should be considered. For additional information on the use of anticoagulation and antiplatelet therapy in surgical patients, refer to the ICUD/ AUA review on Anticoagulation and Antiplatelet Therapy in Urologic Practice.

### **Patients Present in Different Ways**





### **Chip's Clinical Description**



### **Presentation**

 ~60yoM in urinary retention requiring clear intermittent catheterization

### **Objective**

- 65g prostate based on CT
- Prior to initiating CIC had hydroureteronephrosis with AKI

### **Primary concerns**

- Retrograde ejaculation
- Catheter-free
- Preservation of renal function

### <u>PROs</u>

Not recorded



# Discussion: How would you treat Chip?

**Operative course:** uncomplicated HoLEP



### **Treatment Decision Making is Nuanced**



#### **Objective and Subjective Measures**

Primary LUTS: Nocturia Mixed LUTS Incontinence

Medications

Preservation of antegrade ejaculation

Refractory urinary retention

Gross hematuria

Renal insufficiency

Recurrent urinary tract infections

Recurrent bladder stones



### Follow the MUSIC Playbook









### Conclusions



### Key Takeaways

- BPH is common
- Wide variation in procedures used to treat BPH
- Michigan data shows consistently high ED visit rates, regardless of procedure type
- Our goal: Reduce modifiable ED visits related to BPH procedures
  - **Patient Education**
  - Physician-Level Data Reporting
  - Patient-Reported Outcomes

### **Pilot Sites- Join us!**





### **BPH Timeline**







### MUSIC

### **Coordinating Center**

Patient educational materials

Best practices from high performers

Individualized data

Your energy and enthusiasm

Insight into your best practices/ practice data

Ideas

#### **Participating Practices/ Urologists**

### Bass or Bass? -







### **Closing Remarks**

Casey Dauw, MD

### **Prostate Key Takeaways**

- Use of Active Surveillance for GG1 and GG2 disease has dramatically increased since development of the Roadmap
- BUT many AS patients are not getting sufficient follow up
- Time to upgrade from Roadmap to Flight Plan







### **ROCKS Key Takeaways**



- ~2% of URS patients experience an infection-related hospitalization
- Lots of variability in pre-op urine testing and post-op antibiotic use in MUSIC
- Delphi panel planned to develop targeted approach to preventing infectious complications

### **KIDNEY Key Takeaways**



- MUSIC data suggests Renal Mass Biopsy (RMB) is safe, effective, and beneficial (for some patients)
- BUT there are still a lot of unknowns
  - Patient perspectives and selection
  - "Real world data and barriers
- Clinical trial planned to better understand role of RMB

### **BASS Key Takeaways**



- BPH is common >80,000 procedures per year nationally
- Lots of treatment options with varying efficacy and complication rates
- Big opportunity to impact patient care
- <u>BPH: Advances in Surgical Services (BASS) launching soon</u>
  GOAL Reduce procedure-related ED visits



### **THANK YOU! MUSIC** Urologists, APPs, Abstractors, Administrators, Patient Advocates, **BCBSM** Value Partnerships Program







### **MUSIC 2025 Collaborative-wide Meetings**



### **Claim CME by May 16**





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