

Michigan Urological Surgery Improvement Collaborative

Making Michigan #1 in Urologic Care

June 10, 2022



https://www.youtube.com/watch?v=YPl0v16M3dg&list=PL9CZabk3n D4HMPYfYYz3BrKrEL06arVDr&index=13



Impact



>2900 low-risk Ca P patients in MUSIC avoided treatment



30% ↓ in Emergency Dept (ED) visits after ureteroscopy ~ SAVINGS \$1,155,000 / year in avoided ED costs



>3,600 ureteroscopy and radical prostatectomy patients receiving NO opioids each year



13% ↓ in the number of nephrectomies performed (> 100 surgeries avoided)



79 Peer-Reviewed Publications

The Michigan Urological Surgery Improvement Collaborative (MUSIC), established in 2011, is a physician-led quality improvement collaborative comprised of a consortium of urology practices in the state of Michigan. The collaborative is designed to evaluate and improve the quality and cost efficiency of prostate cancer care for men in Michigan.

Our vision is to be an innovator in physician-led quality improvement activities related to prostate cancer care in Michigan. By collecting clinically-credible data, comparing performance among our peers, sharing best practices, and implementing changes in clinical behavior, we will achieve more efficient utilization of healthcare resources, improve care delivery in our own environments, and enhance the quality, value, and outcomes of treatment provided to men in Michigan with prostate cancer.



Table

The overall aims of the collaborative include, among others, evaluating and improving patterns of care in the radiographic staging of men with newly diagnosed prostate cancer, reducing biopsy-related complications and assessing repeat biopsy patterns, improving patient outcomes after radical prostatectomy, enhancing patient-centered decision making among men considering local therapy for early-stage prostate cancer, and understanding and reducing variation in the use of androgen deprivation therapy. Participating practices submit data to a clinical registry maintained by the MUSIC Coordinating Center and tri-annual consortium-wide meetings are held each year to discuss data, review risk-adjusted measures of processes of care and patient outcomes, and identify strategies and best practices for quality improvement.





THANK YOU: We've been making MUSIC for





- Collegial
- Non-competitive
- Evidence-based
- Confidential
- No "billboards"

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



- Data Abstractor Breakout*
- Networking
- Welcome & Introductions
- ROCKS Pre-Stented Patients: The Ideal Candidate for Stent Omission
- Lunch

- Prostate- Active Surveillance for Grade Group 2 Prostate Cancer: Truths, Myths, Uncertainty, and Potential
- Keynote Speaker- Dr. M. Minhaj Siddiqui
- Short Break
- KIDNEY Renal Mass Biopsy Update
- Closing Remarks



Welcome -

"New" Coordinating Center Team Members



Archana Radhakrishnan, MD



Andrew Krumm, PhD



Bronson Conrado, MHSA



Corinne Labardee, MPH



David Gandham



Welcome -

International and New Members



Hyung Kim, MD South Korea



Golena Fernandez Moncaleano, MD Columbia



Ray (Hung-Jui) Tan, MD, MSHPM
University of North Carolina
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Welcome – Guests, Patient Advocates, and Partners

Guests

- Kara Watts, MD Montefiore Medical Center / Albert Einstein College Medicine
- M. Minhaj Siddiqui, MD University of Maryland Medical Center

Patient Advocates

- Doug Adams
- Dennis Sitek

BCBSM Partner

- Daria Massimilla Blue Cross Blue Shield of Michigan
- Faris Ahmad MD, FACOG, MBA (Medical Director, Clinical Partnerships)



Updates

Khurshid Ghani, MD



Key Publications

JU Insight



Development and Validation of Models to Predict Pathological Outcomes of Radical Prostatectomy in Regional and National Cohorts

Erkin Ötleş[©], Brian T. Denton, Bo Qu et al.

Correspondence: Karandeep Singh (email: kdpsingh@umich.edu).

Full-length article available at www.auajournals.org/10.1097/JU.0000000000002230



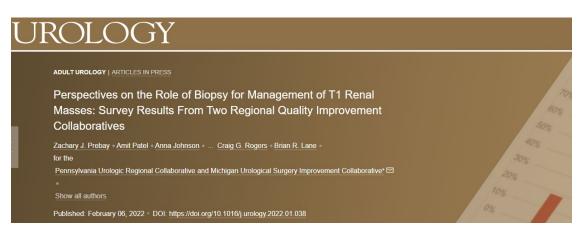
Appropriateness Criteria for Ureteral Stent Omission following Ureteroscopy for Urinary Stone Disease

Spencer C. Hiller , Stephanie Daignault-Newton, Ivan Rakic et al.

Ötelş et. al., The Journal of Urology

Hiller et. al., Urology Practice

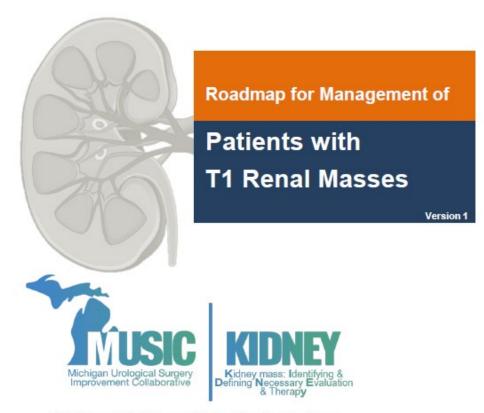
UROLOGY



Prebay et. al., *Urology*



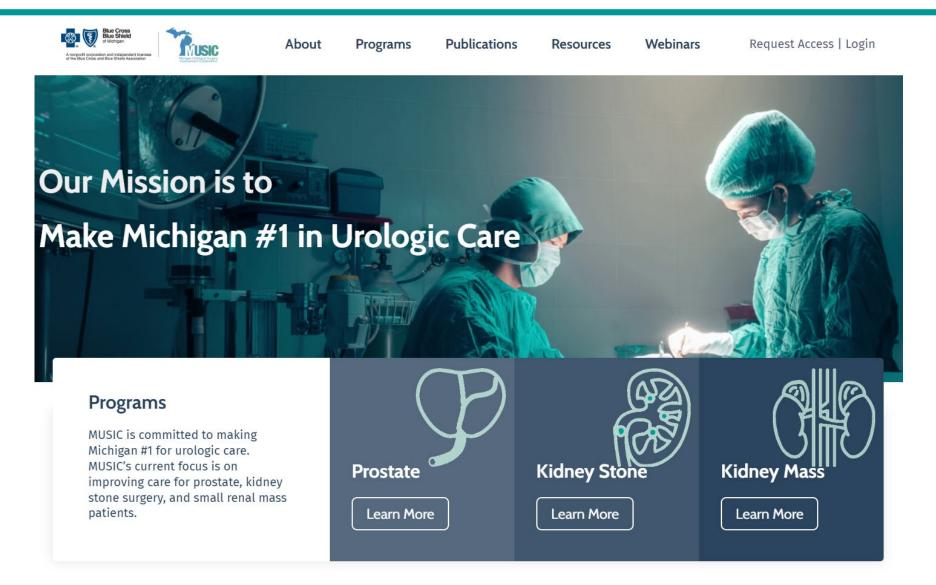
New KIDNEY Roadmap now available



Making Michigan #1 in Urologic Care



Visit the NEW Website www.musicurology.com





Update on Clinical Trials in MUSIC

Genomics in Michigan to AdJust Outcomes in Prostate Cance R

- Define the clinical utility of genomic testing in men with newly diagnosed favorable risk prostate cancer
- Collaborative effort between MUSIC and the Michigan Radiation Oncology Quality Consortium (MROQC)
- Enrollment underway

Better Lithotripsy and Ureteroscopy Evaluation of Stenting

- Multi-center pragmatic randomized comparing the effectiveness of ureteral stent composition (silicone vs percuflex) on patient reported outcomes for ureteroscopy in patients with kidney stones
- 5 centers throughout MUSIC
- 2 enrolling patients
- 4 onboarding



Membership beyond Michigan: Outdoor MUSIC





Engagement of non-Michigan urology practices



Establish reproducible, exportable model to improve urological care



Improve and inform data collection and reporting



University of North Carolina – Urology is the first site to join with several more sites expressing interest

Urology



Implementation & Dissemination Site Visits

32 Site Visits Completed in 2021 – Thank you!







Provide us feedback: Survey in your meeting folder Thank you for providing your perspective!



Pre-Stented Patients: The Ideal Candidate for Stent Omission

Khurshid Ghani, MD Spencer Hiller, MD Casey Dauw, MD



What we know

Khurshid Ghani, MD



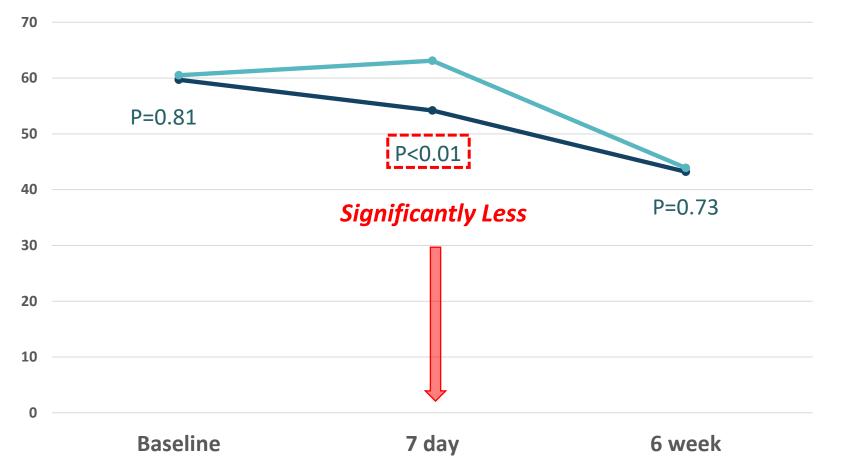
Ureteral Stents are Problematic: Quality of Life

- Flank pain, hematuria, and reduced quality of life in 80% of patients (Joshi, J Urol 2003)
- Patients describe the stent as the worst part of ureteroscopy (Chandrasekar, J Endourol 2015)
- Multimodal pain control regimens, and opiates commonly prescribed (Kang, J Endo 2019)
- 6.2% opioid-naive pts develop new persistent opioid use after URS (Tam, Urology 2019)



Patients Report Stents are Uncomfortable

Patient Reported Pain Interference



--Stent



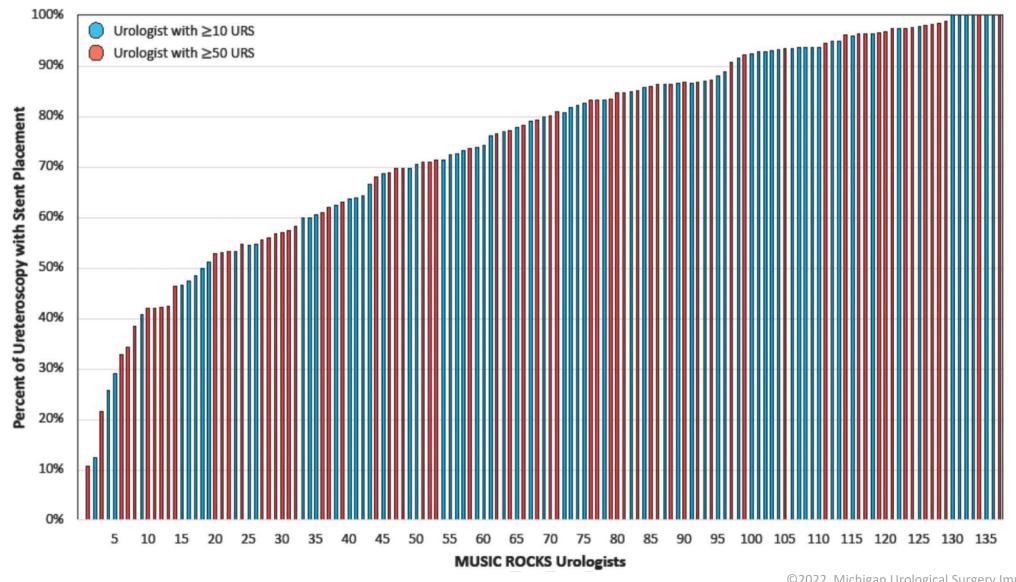
AUA Guidelines: Selective Approach to Stenting

Clinicians may omit ureteral stents in patients if all criteria are met:

- No suspected ureteric injury
- No evidence of ureteral stricture or other anatomical impediments to stone fragment clearance
- Normal contralateral kidney
- No renal functional impairment
- No secondary URS planned (stone >1.5 cm)



Yet - Significant Provider Variation in Stenting





Does Stent Omission Lead to Problems?



Ureteral stent versus no ureteral stent for ureteroscopy in the management of renal and ureteral calculi (Review)
(2019)

Ordonez M, Hwang EC, Borofsky M, Bakker CJ, Gandhi S, Dahm P

23 trials with 2656 patients after uncomplicated URS, randomized to stent or no stent

Stenting may **slightly reduce the number of unplanned return visits** (very low CoE), but we are very <u>uncertain of this finding</u>



Stents are Associated with Increased ED Visits

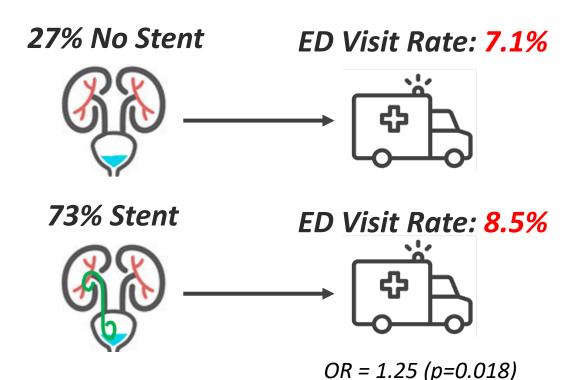


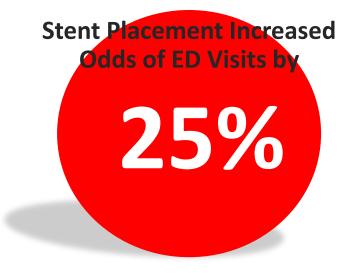
Ureteral Stent Placement following Ureteroscopy Increases Emergency Department Visits in a Statewide Surgical

Collaborative Spencer C. Hiller,* Stephanie Daignault-Newton,† Hector Pimentel, Sapan N. Ambani, John Ludlow, John M. Hollingsworth, Khurshid R. Ghani, and Casey A. Dauw

9,662 URS procedures







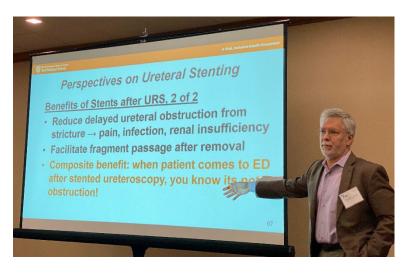


Solution: Stent Omission Appropriateness Criteria

15 Member Panel

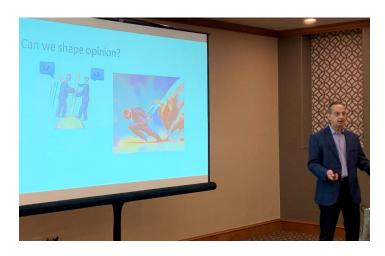


Expert Invited Moderator



J. Stuart Wolf, Jr., MD, FACS
Former AUA Science & Quality Chair
& AUA Guideline Chair

Local Moderator



Michael Cher, MD

Chair, Department of Urology
Wayne State University
Active Surveillance Panel

Appropriate for Stent Omission – 26 scenarios

Uncertain – 30 scenarios

Inappropriate for Stent Omission – 88 Scenarios



UROLOGY PRACTICE® Www.auajournals.org/journal/urpr

Appropriateness Criteria for Ureteral Stent Omission following Ureteroscopy for Urinary Stone Disease

Spencer C. Hiller ¹⁰, ^{1*} Stephanie Daignault-Newton, ¹ Ivan Rakic, ² Susan Linsell, ¹ Bronson Conrado, ¹ S. Mohammad Jafri, ³ Ronald Rubenstein, ³ Mazen Abdelhady, ⁴ C. Peter Fischer, ⁵ Elena Gimenez, ⁶ Richard Sarle, ⁷ William W. Roberts, ¹ Conrad Maitland, ⁸ Rafid Yousif, ⁹ Robert Elgin, ¹⁰ Laris Galejs, ¹¹ Jeremy Konheim, ⁶ David Leavitt, ¹² Eric Stockall, ¹³ J. Rene Fontera, ¹⁴ J. Stuart Wolf, Jr., ¹⁵ John M. Hollingsworth, ¹ Casey A. Dauw ¹ and Khurshid R. Ghani ¹ for the Michigan Urological Surgery Improvement Collaborative

⁹Lansing Institute of Urology, Lansing, Michigan

¹Department of Urology, University of Michigan, Ann Arbor, Michigan

²Wayne State University School of Medicine, Detroit, Michigan

³Department of Urology, William Beaumont Hospital, Royal Oak, Michigan

⁴Department of Urology, Detroit Medical Center, Detroit, Michigan

⁵Associates in Urology, Chelsea, Michigan

⁶IHA-Urology, Ypsilanti, Michigan

⁷Sparrow Medical Group, Lansing, Michigan

⁸Sherwood Medical Center, Detroit, Michigan

¹⁰Michigan Institute of Urology, St. Claire Shores, Michigan

¹¹Michigan Institute of Urology, Howell, Michigan

¹²Vattikuti Urology Institute, Henry Ford Health System, Detroit, Michigan

¹³Capital Urological Associates, Okemos, Michigan

¹⁴Michigan Institute of Urology, Troy, Michigan

¹⁵Dell Medical School, University of Texas, Austin, Texas



Stent Omission Appropriateness: A Deep Dive

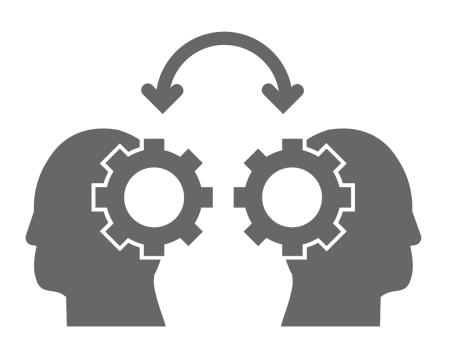
Spencer Hiller, MD



Stent Omission Appropriateness: **Defining "Uncomplicated"**

- No history of sepsis associated with urinary tract infection
- 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
- No ureteral perforation or trauma
- Not immunocompromised
- No evidence of functional/anatomic solitary kidney

- No anatomic abnormalities (i.e. stricture, UPJ obstruction, horseshoe kidney)
- No urinary tract reconstruction
- No uncorrected bleeding diathesis





Stent Omission Appropriateness: Clinical Variables



Pre-stented: Yes and No



Location: **Ureter** or **Kidney**



Size: **≤10mm**



UA/Urine Culture: Negative



Access Sheath: No



Ureteral Dilation: No



Fragments: Very Small / None





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
Not Pre-Stented Stone size: ≤ 10mm	Residual Fragments: Small or None
	Access Sheath Use: No
	Dilation: No

^{*}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.







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 history of neurogenic
- 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

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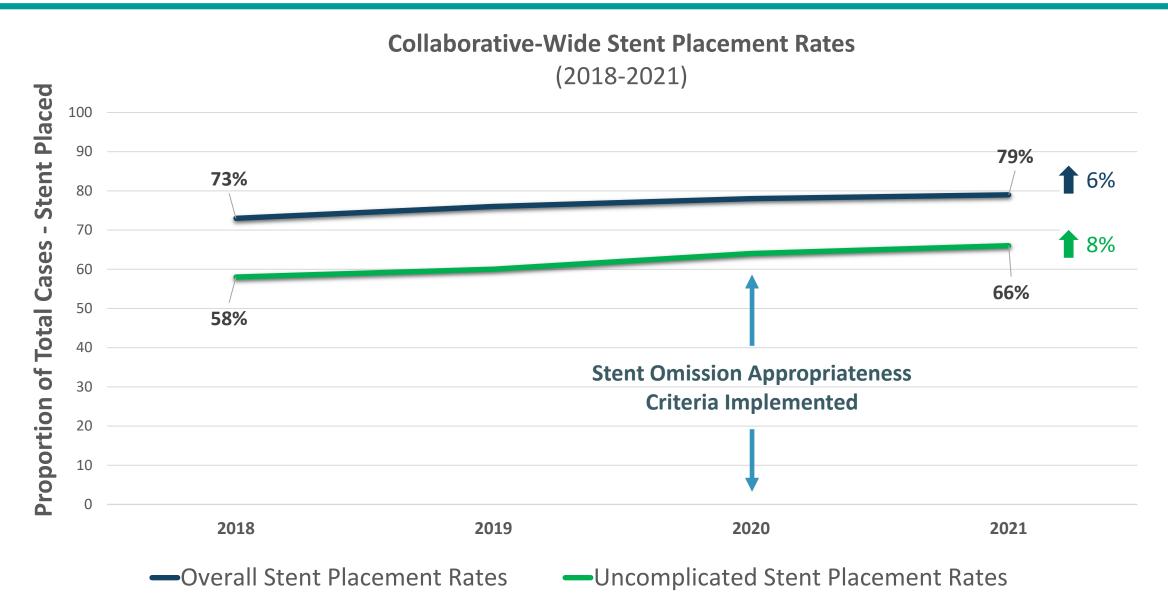


Where we are now

Spencer Hiller, MD

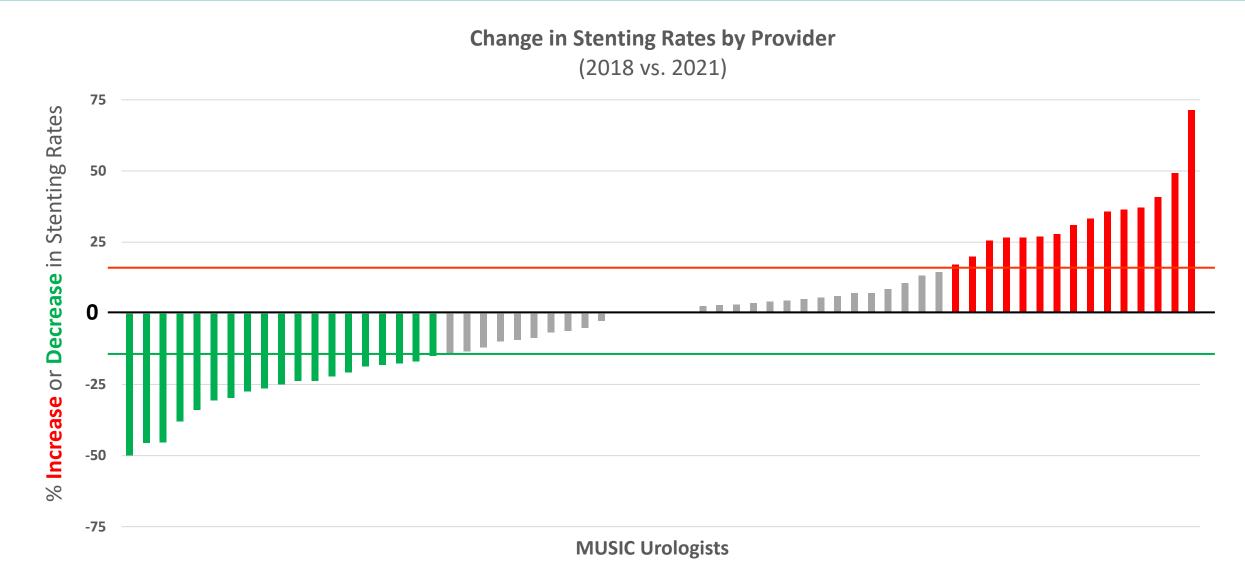


Stenting Rates Have Increased Over Time





Change in Stenting Rates: Uncomplicated URS





Stent Omission Appropriateness Criteria Panelists







Dr. Richard Sarle



Dr. Mo Jafri



Dr. Laris Galejs



Dr. Ron Rubenstein



Dr. J Rene Frontera



Dr. Peter Fischer



Dr. Elena Gimenez



Dr. William Roberts



Dr. Mazen Abdelhady



Dr. Conrad Maitland



Dr. Rafid Yousif



Dr. John Harb



Dr. Jeremy Konheim



Dr. David Leavitt



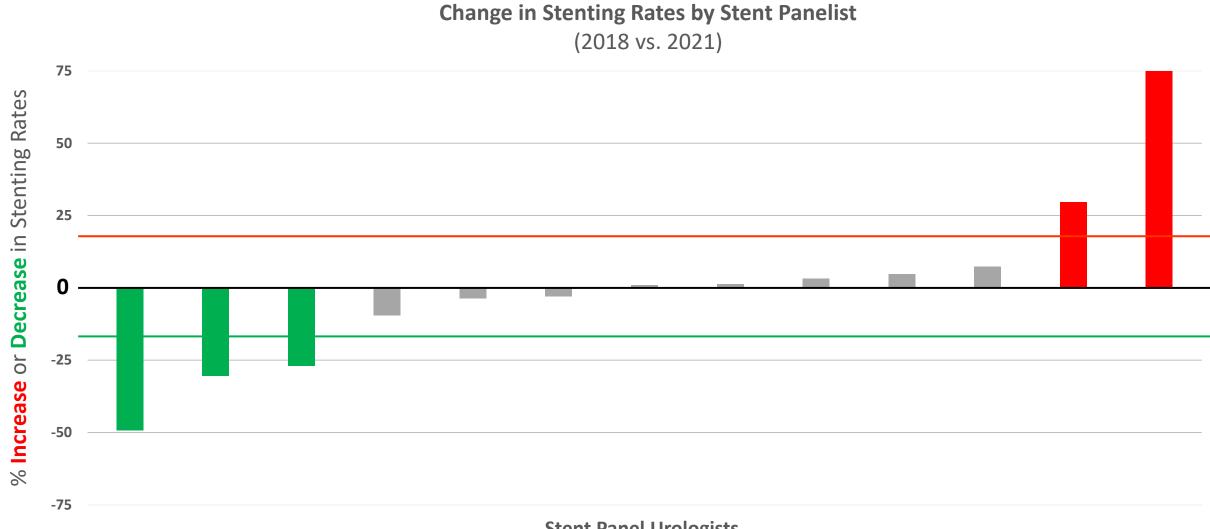
Dr. Kandis Rivers



Dr. Eric Stockall



Change in Stenting Rates





Why have stenting rates not changed?



Open Discussion

Q&A Panelists



Dr. Jeremy Konheim

IHA Urology



Dr. Kandis Rivers *Henry Ford Health System*



Dr. Richard SarleSparrow Medical Group

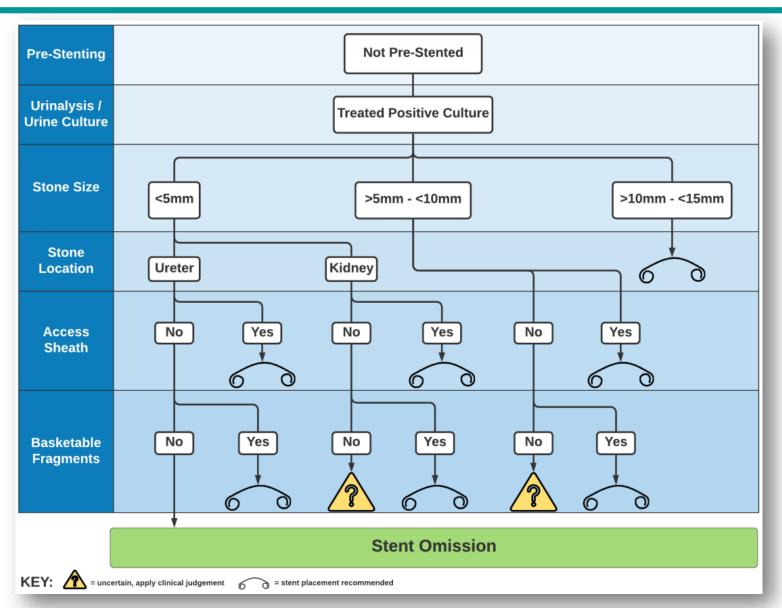


Where do we go next?

Casey Dauw, MD



Defining Uncomplicated, Complicated the Process

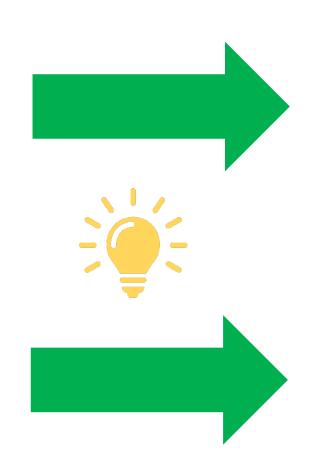








The Pre-stented Ureter



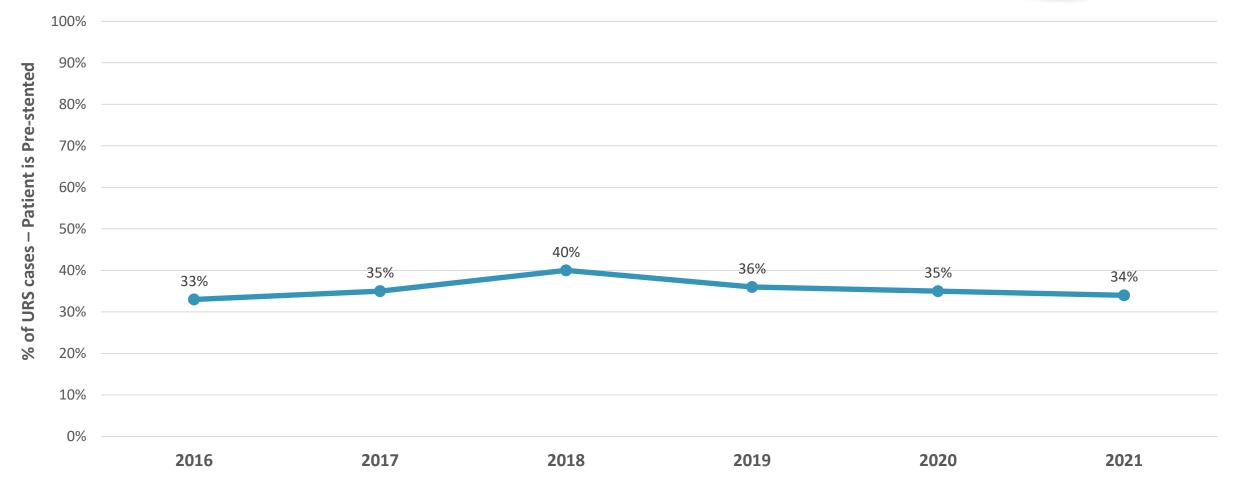




Pre-Stented Cases are Common



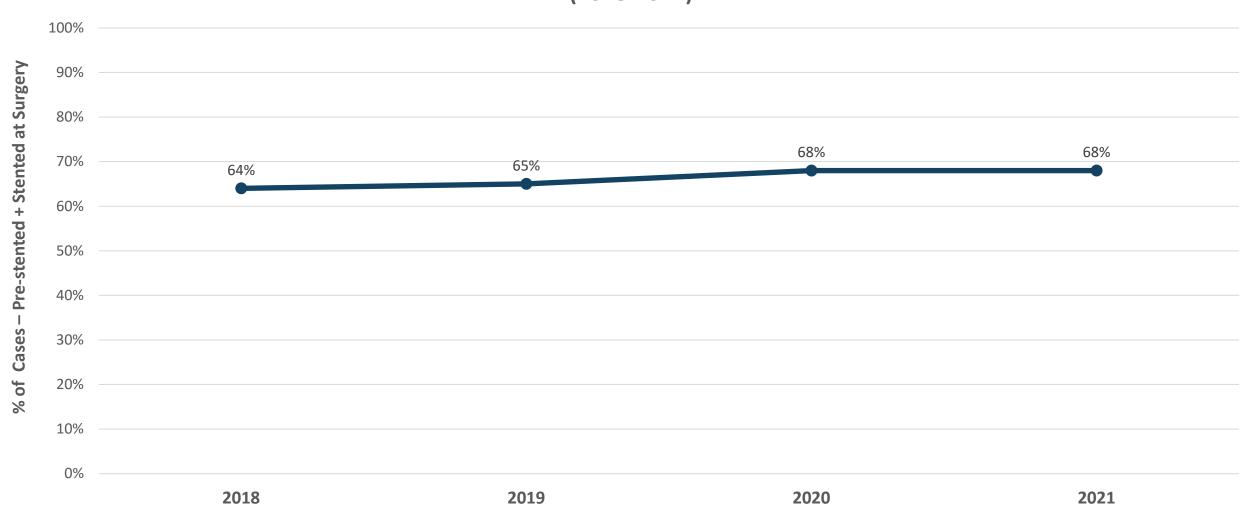






Pre-Stented Patients are Still Being Stented







Pre-Stented URS Patients Have Superior Outcomes

National Data



- ✓ Higher Stone-Free Rates
 - 7% vs. 47% (p<0.02) Rubenstein et al.
 - ≥ 5 mm stones 98% vs. 83% (p<0.0105) Netsch et al.



- ✓ Shorter First Operative Time
 - Chu et al.



- ✓ Decreased Reoperation Rate
 - PTs with > 1cm proximal ureteral stones Chu et al.



- ✓ Reduced Operative Complications
 - Turk et al.



Stent Omission: Pre-Stented Patients in MUSIC

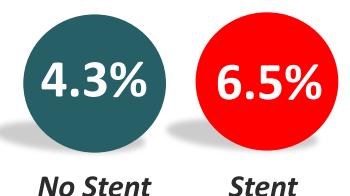
MUSIC Data

N = 11,363

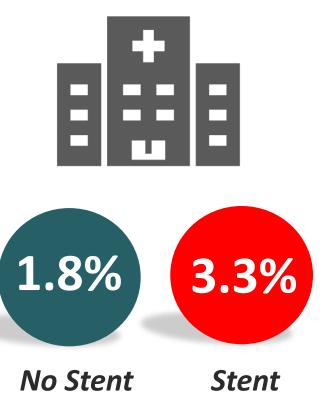
✓ Risk Adjusted

ED Visit Rates

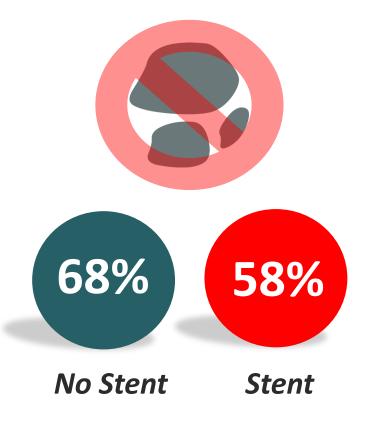




Hospitalization Rates



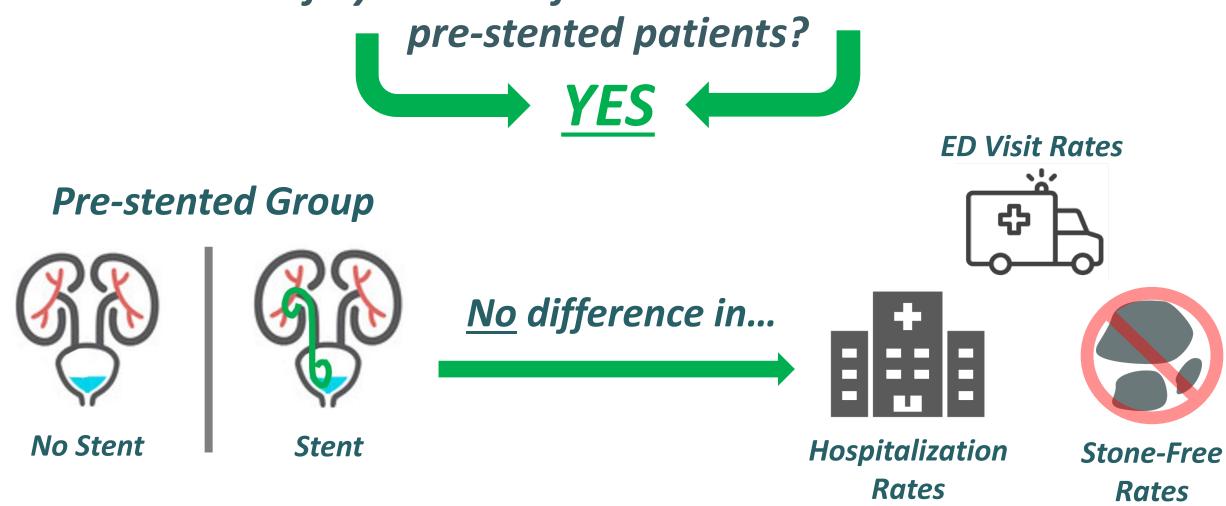
Stone-Free Rates





Stent Omission: Ureteral Access Sheaths

Can stents be safely omitted if a ureteral access sheath is used in pre-stented patients?





Stent Omission: Concern for Infection

Pre-Stented Group





23% Culture Positive

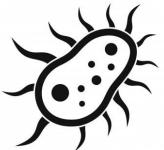
Positive pre-op urine cultures are higher, however...





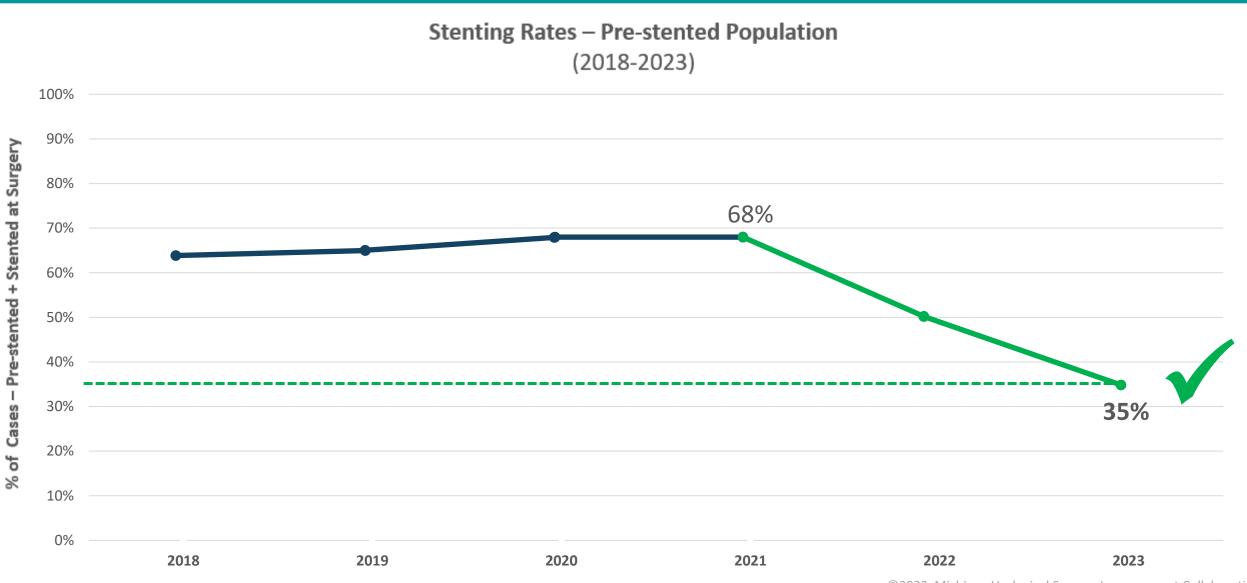
No difference in...

Rates of Sepsis



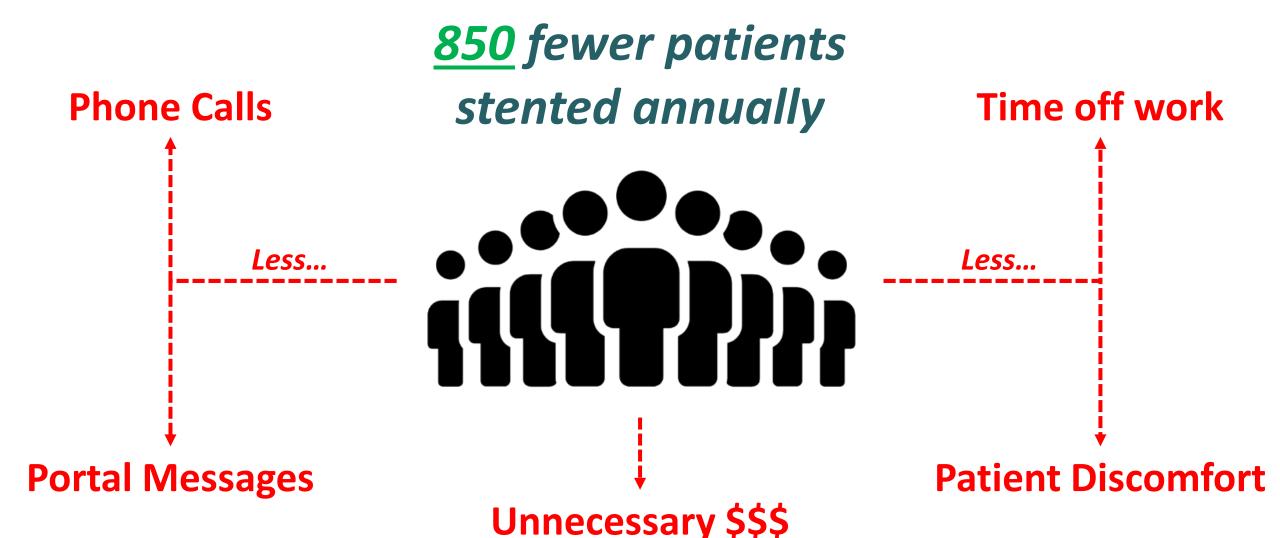


Targeting Pre-Stented Population: The Potential Impact





Targeting Pre-Stented Population: The Potential Impact





Stent Omission: Let's Keep it Simple



ROCKS Stent Omission Appropriateness Criteria

Patient	Criteria		
Pre-stented	Case Type: Uncomplicated URS*		
Stone size: < 15mm	Stone Location: Kidney or Ureter		
310116 3126. \ 13111111	UA/Urine Culture: Negative		
Not Pre-Stented Stone size: ≤ 10mm	Residual Fragments: Small or None		
	Access Sheath Use: No		
	Dilation: No		

*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.







Patient/Criteria

Pre-stented





What we've learned



Stents are bothersome for patients and are placed commonly in Michigan



Stenting rates are unchanged despite results of the stent panel



Pre-stented patients = unique opportunity for stent omission



When stents are omitted, outcomes → <u>Superior</u>



Opportunity to improve patient outcomes and healthcare utilization

Decrease stenting rates in the pre-stented population



Pre-Stented Patients: The Ideal Candidate for Stent Omission...



Michigan Urological Surgery Improvement Collaborative



Making Michigan #1 for Kidney Stone Care





Active Surveillance for GG2 Prostate Cancer: Truths, Myths, Uncertainty, and Potential

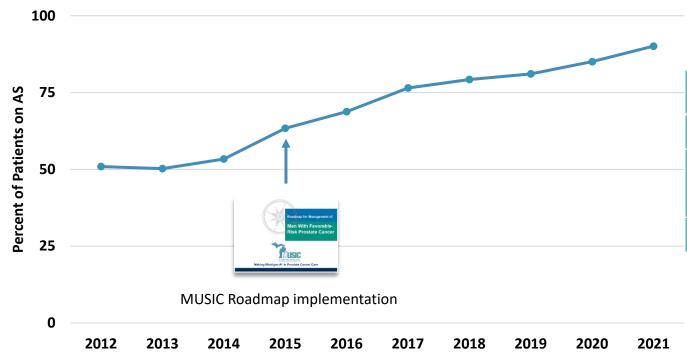
Alice Semerjian, MD



Improving Treatment Appropriateness for Low-Risk PCa

Increased overall AS rate in low-risk PCa patients

Reduced variation across practices and providers

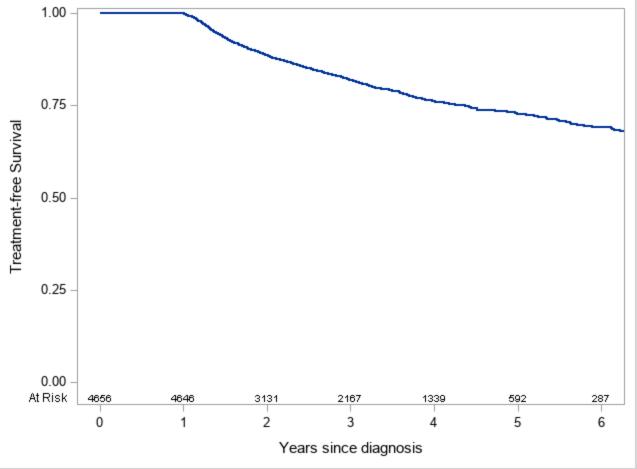


Metric	2015 Rate	2021 Rate
Consideration of AS	68%	96%
Confirmatory Testing in AS Eligible Patients	20%	62%
Verified AS	63%	90%

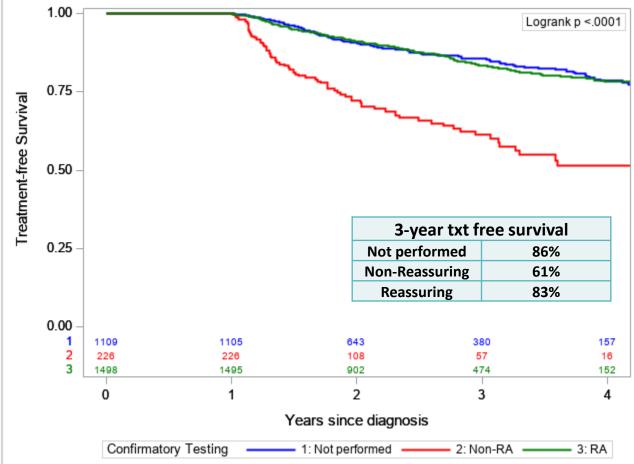


Avoiding Radical Therapy

Treatment Free Survival Over Time

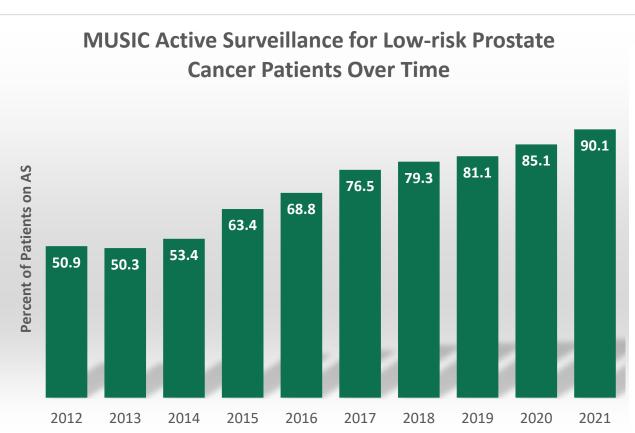


Treatment Free Survival by Reassuring vs. Non reassuring vs. no confirmatory test





MUSIC vs. AQUA Active Surveillance Rate Over Time



Comprehensive
Cancer Center

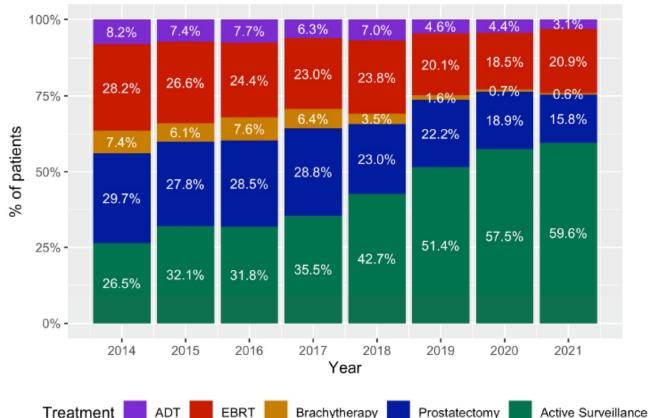
Active Surveillance for Low-risk Prostate Cancer:



Time Trends and Variation in the AUA Quality (AQUA) Registry

Matthew Cooperberg, William Meeks, Raymond Fang, Franklin Gaylis, William Catalona, and Danil Makarov University of California, San Francisco, American Urological Association Education and Research, Genesis Healthcare Partners, Northwestern University, and New York University

Figure 2: Treatment of low-risk disease over time





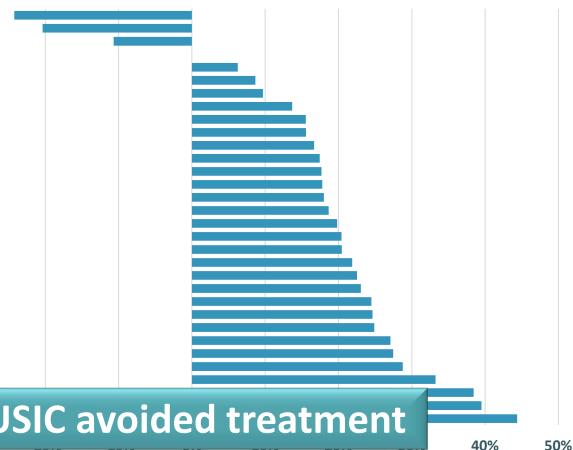
How Have We Been Successful?

✓ Developed provider and patient educational resources

✓ Maturation of long term AS data

✓ Increased use of confirmatory testing







>2900 low-risk patients in MUSIC avoided treatment

Change from baseline on percent of patients on AS

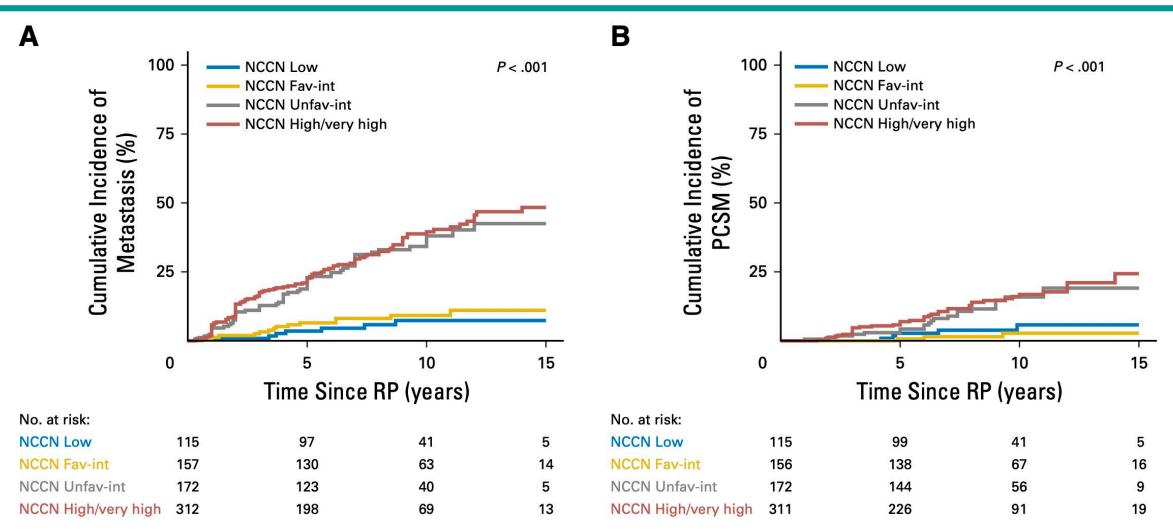


Let's Talk About Active Surveillance for GG2 Patients

Kevin Ginsburg, MD



GG2 PCa Closer to GG1 than GG3





GG2 PCa Closer to GG1 than GG3

Table 3. Univariate and Multivariate Cox Regression Analyses of Histopathological Risk Factors Based on Tumor
Specimens from Radical Prostatectomy.

End Point and Risk Factor	No. of Men	No. of Events	Relative Risk with Adjustment for Age Group (95% CI)*	Relative Risk with Adjustment for Age Group and Additional Factors (95% CI)†
Death from prostate cancer	Wich	LVCIIIS	(5570 CI)	1 401013 (5570 01)]
Margins				
Negative	184	24	Reference	Reference
Positive	99	24	2.55 (1.42-4.56)	1.16 (0.62–2.15)
Extracapsular extension				
Absent	151	9	Reference	Reference
Present	132	38	7.61 (3.66–15.84)	5.21 (2.42–11.22)
Gleason score of prostatectomy specimen				
3–6	88	3	Reference	Reference
3+4	87	5	1.91 (0.46–7.99)	0.99 (0.23–4.33)
4+3	70	21	11.78 (3.51–39.55)	5.73 (1.59–20.67)
8 or 9	38	19	20.06 (5.93–67.91)	10.63 (3.03–37.30)

Bill-Axelson, NEJM, 2018

Men with GG2 PCa on RP were no more likely to die of PCa than men with GG1 PCa on RP!



Is There a Benefit to Treating GG2 Disease?

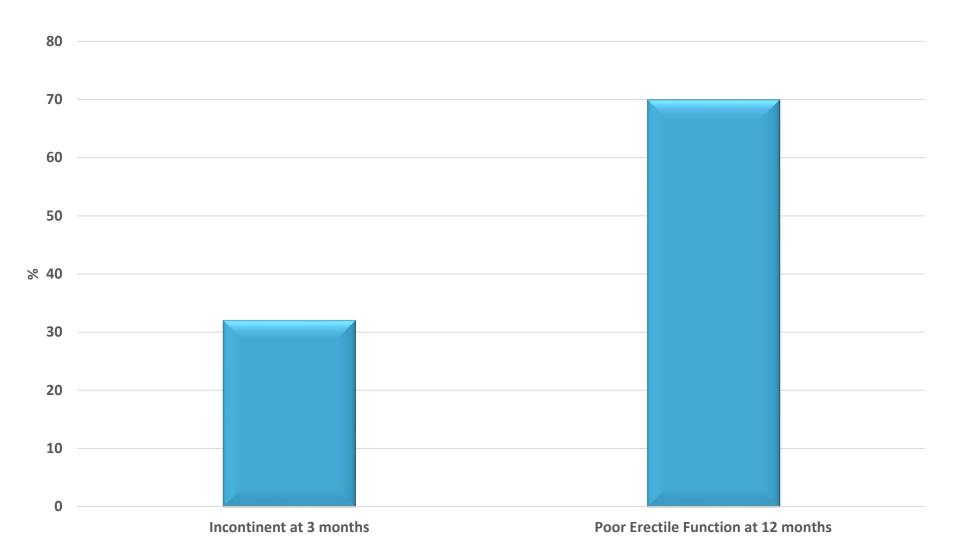
Table 2 - Mean years of life gained in the entire cohort at 22 yr by patient and tumor characteristics.

Patient characteristics	Restricted mean survival time for the radical prostatectomy group	Restricted mean survival time for the observation group	Years of life gained (95% CI)
Overall	13.6 (12.9, 14.3)	12.6 (11.8, 13.3)	1.0 (0.0, 2.0)
Age (yr)			
<65	14.9 (13.6, 16.0)	13.9 (12.8, 15.0)	0.9 (-0.7, 2.6)
≥65	12.5 (11.7, 13.3)	11.4 (10.6, 12.3)	1.1 (-0.1, 2.3)
Race			
White	13.1 (12.3, 13.9)	12.0 (11.1, 12.8)	1.1 (-0.1, 2.3)
Black	13.3 (12.1, 14.6)	12.7 (11.5, 14.0)	0.6 (-1.2, 2.3)
Other	15.8 (13.0, 18.6)	13.3 (10.4, 16.2)	2.5 (-1.5, 6.5)
Charlson score			
0	14.6 (13.8, 15.5)	13.7 (12.8, 14.6)	0.9 (-0.3, 2.1)
≥1	11.3 (10.3, 12.3)	10.3 (9.2, 11.3)	1.0 (-0.4, 2.4)
Performance status			
0	13.7 (13.0, 14.4)	12.8 (12.1, 13.5)	0.9 (-0.1, 2.0)
Central Gleason score ^b			
<7	14.3 (13.3, 15.3)	13.3 (12.3, 14.2)	1.0 (-0.4, 2.4)
≥7	12.4 (11.5, 13.4)	11.3 (10.2, 12.4)	1.1 (-0.3, 2.6)
Risk (central) ^b			
Low	14.3 (13.0, 15.6)	13.9 (12.7, 15.2)	0.4 (-1.4, 2.1)
Intermediate	13.4 (12.4, 14.4)	12.0 (11.0, 13.1)	1.4 (-0.1, 2.9)
High	11.6 (10.2, 13.1)	10.6 (9.3, 12.0)	1.0 (-1.0, 3.0)

Cooperberg, Eur Urol, 2020



Music Morbidity of Treating GG2 Disease





Guest Panel Members



Doug AdamsPatient Advocate



Ryan Nelson, MDMichigan Institute of Urology



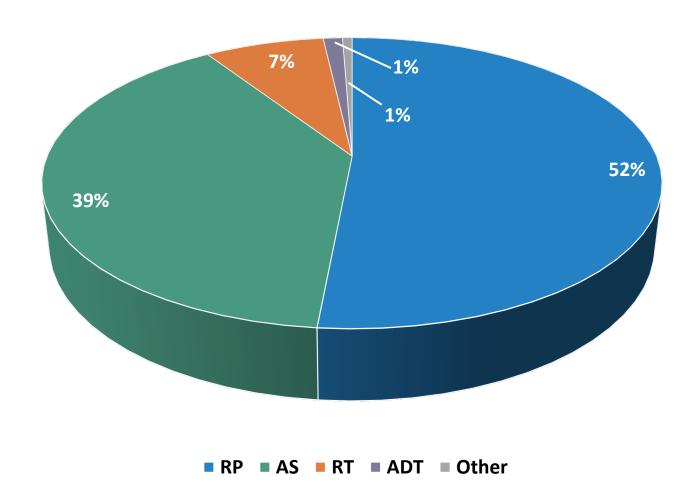
M. Minhaj Siddiqui, MD
University of Maryland
Medical Center



Ray Tan, MD MSHPM University of North Carolina

GG2 AS in MUSIC

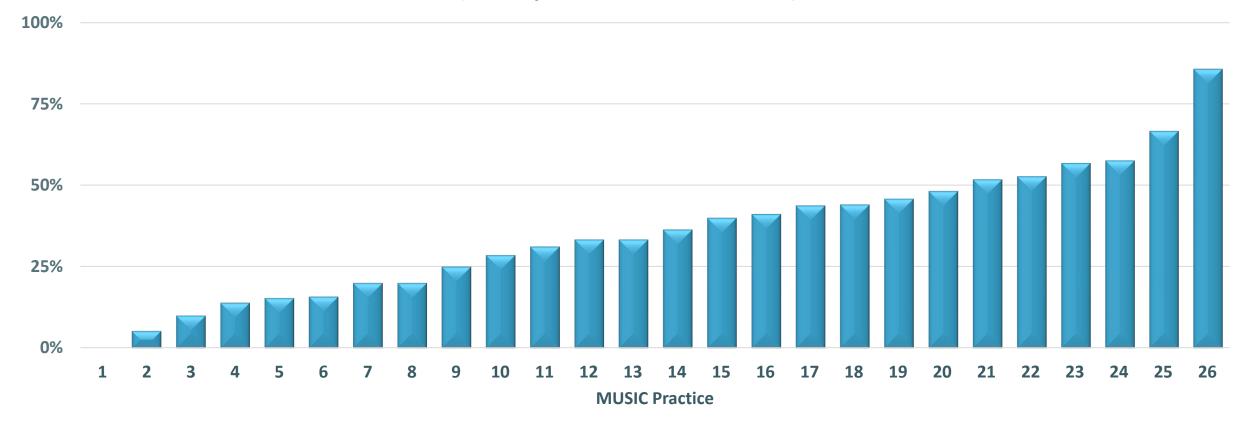
Initial treatment for GG2 patients





Practice Level Variation for Surveillance in GG2 Patients

Proportion of GG2 patients on AS (January 2020 – Current; ≥5 cases)





How to Select Men with GG2 PCa for AS?

• Who is an ideal candidate?

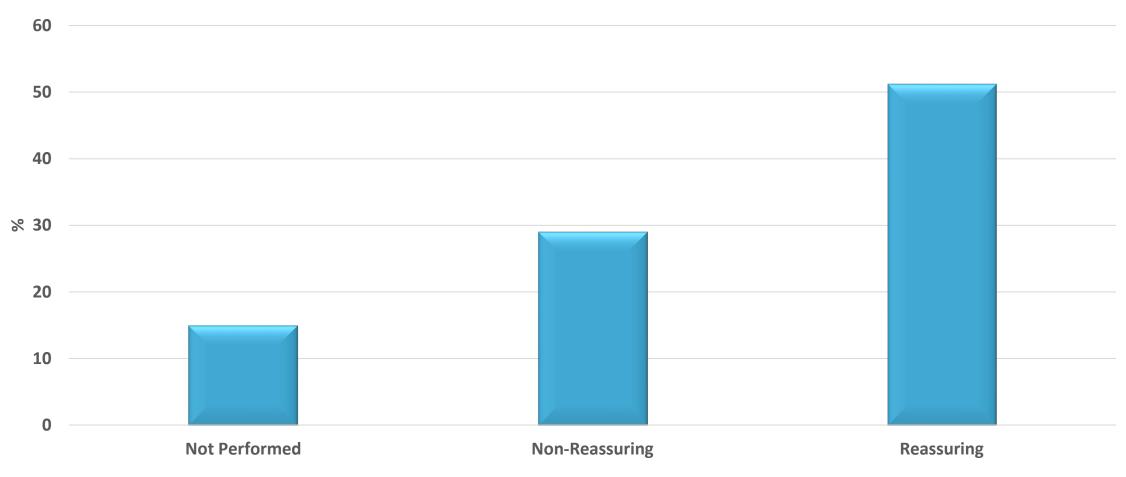
Someone that should be treated upfront?

Role for confirmatory tests?



How to Select Men with GG2 PCa for AS?

GG2 Patients Selecting Active Surveillance by Confirmatory Testing





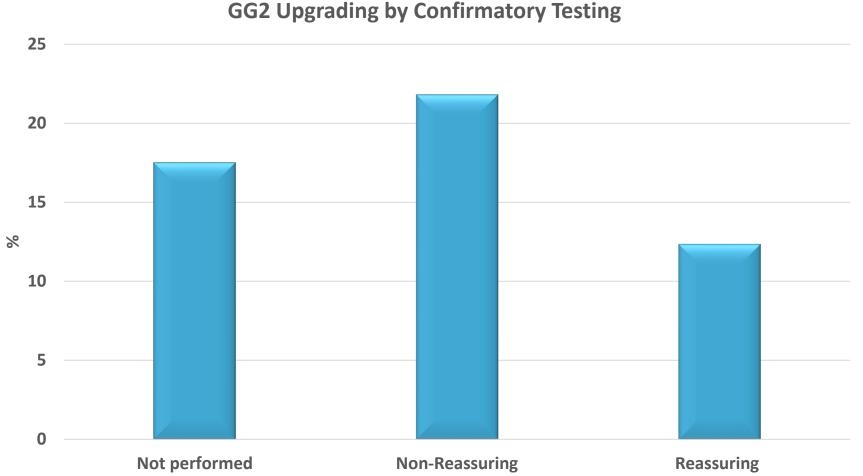
Expanding AS to Select Men with GG2 PCa

• What our some of hesitations to the broader use of AS for men with GG2 prostate cancer?



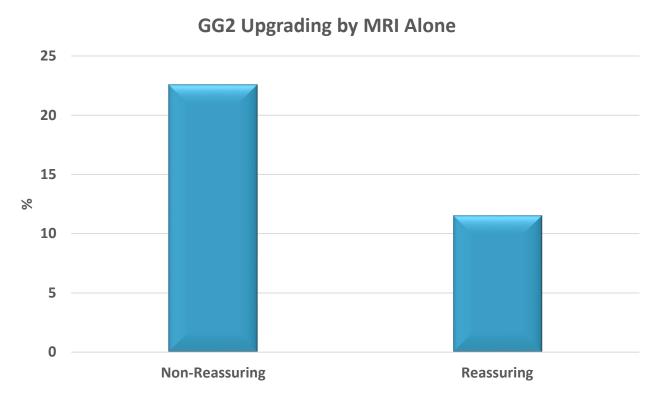
Myth #1: Risk of Misclassification is High

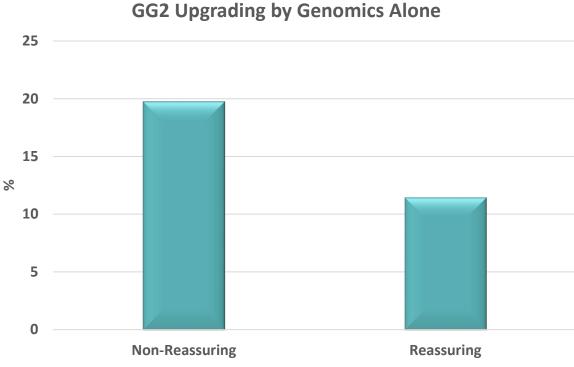
• MUSIC: 18% upgrading for men with GG2 PCa undergoing immediate RP





Myth #1: Risk of Misclassification is High







Myth #2: GG2 Has Significantly Worse Outcomes



Prostate Cancer Pathologic Outcomes tool



Age: 65

PSA: 6

Path: 4/12; GG1





Age: 65

• PSA: 6

Path: 2/12; GG2





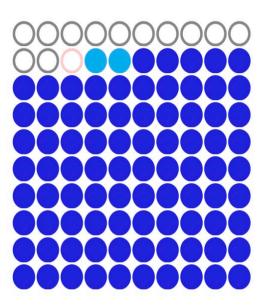
Myth #2: GG2 Has Significantly Worse Outcomes



• Age: 65

PSA: 6

• Path: 4/12; GG1



12 deaths due to other causes

1 prostate cancer related death

2 extra survivors due to radical treatment

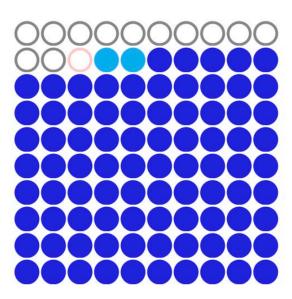
85 survivors with initial conservative management



Age: 65

• PSA: 6

• Path: 2/12; GG2



12 deaths due to other causes

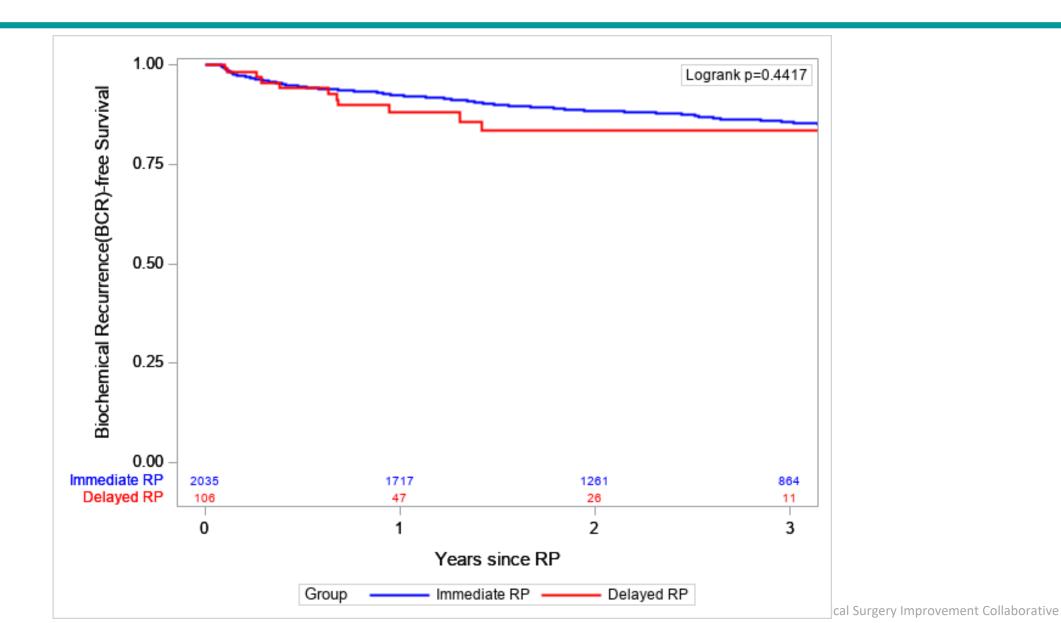
1 prostate cancer related death

2 extra survivors due to radical treatment

85 survivors with initial conservative management



Myth #3: Miss the Window of Cure





Improving the Utilization of Surveillance in GG2 Patients



Patient selection



Identify triggers for treatment



Longer term oncological outcomes



fusic Key Takeaways



GG2 of 2022 is not the same as GG2 of the 2000s



Small benefit to treating many men with GG2 disease



AS is appropriate for select men with GG2 disease



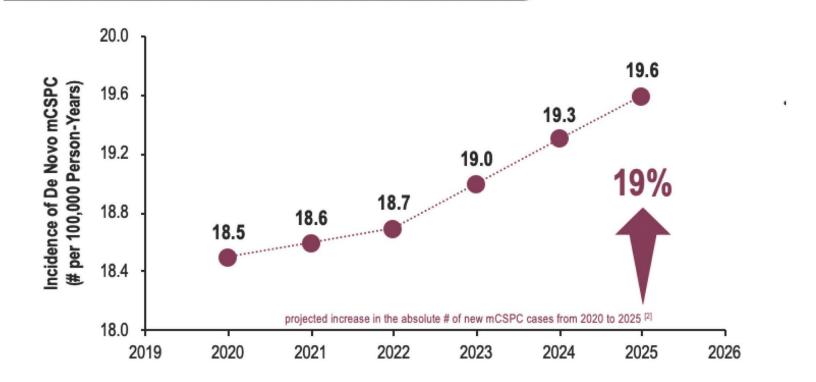
Is Michigan #1 in the Management of Metastatic Castrate Sensitive Prostate Cancer (mCSPC)?

Jason Hafron, MD



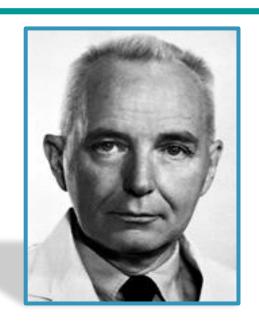
De Novo mCSPC Expected to Rise

2020-2025 Forecasted De Novo mCSPC Diagnoses [1]





Prostate Cancer Is Hormone Dependent



"Despite regressions of great magnitude, it is obvious that there were many failures of endocrine therapy to control the disease..."

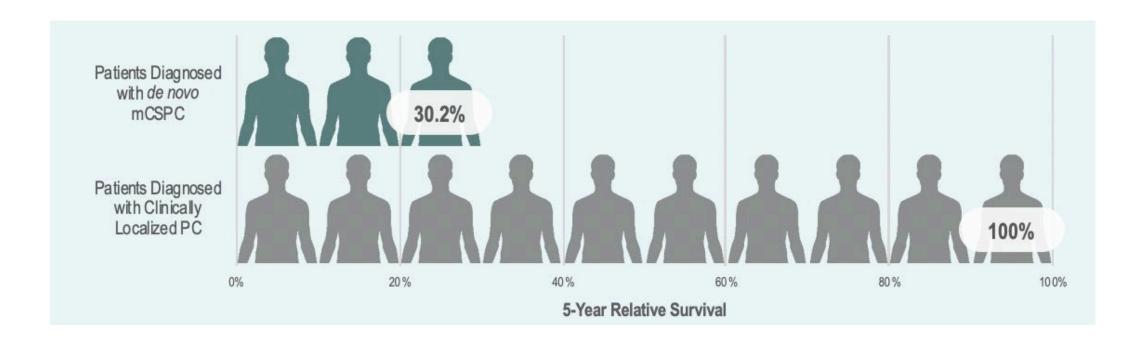
Charles B. Huggins
Nobel lecture December 13, 1966



mCSPC Prognosis

The SEER Database Provides a Historical on the Prognosis of mCSPC

5-year Survival was evaluated among men with mCSPC or clinically localized PC between 2010 and 2016

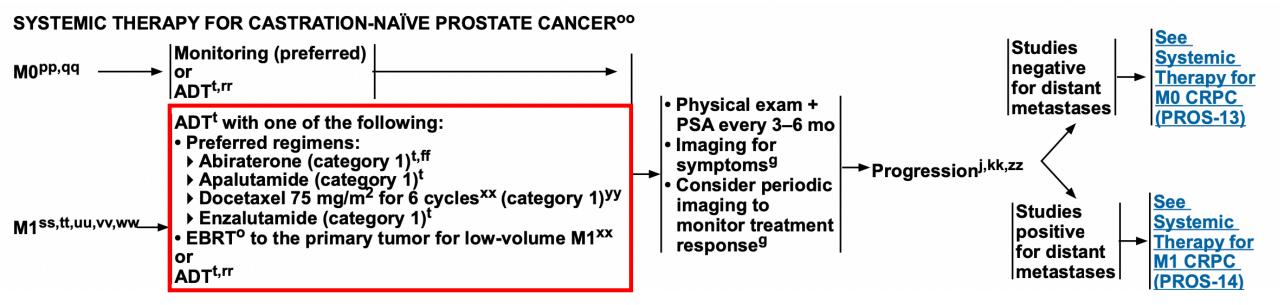


Abbreviations: SEER (Surveillance, Epidemiology and End Results).

National Cancer Institute. SEER cancer statistics review, 1975-2017 (04-2020). https://seer.cancer.gov/csr/1975_2017/results_merged/sect_23_prostate.pdf. Accessed 02-17-2021. 076-6766-PM 5/21



Current NCCN Guidelines





Music Advanced Prostate Cancer: AUA/ASTRO/SUO Guideline

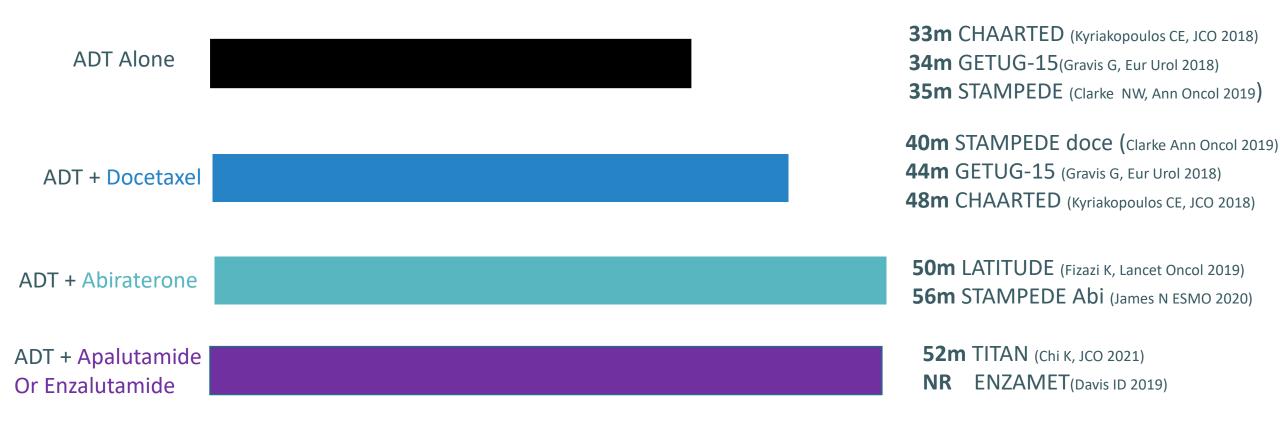
Metastatic Hormone-Sensitive Prostate Cancer

- Clinicians should offer continued ADT in combination with either androgen pathway directed therapy (abiraterone acetate plus prednisone, apalutamide, enzalutamide) or chemotherapy (docetaxel). (Strong recommendation; Evidence Level: Grade A)
- Clinicians should not offer first generation antiandrogens (bicalutamide, flutamide, nilutamide) in combination with LHRH agonists, except to block testosterone flare. (Strong Recommendation; Evidence Level: Grade A)
- Clinicians should not offer oral androgen pathway directed therapy (e.g. abiraterone acetate plus prednisone, apalutamide, bicalutamide, darolutamide, enzalutamide, etc.) without ADT (Expert Opinion)



Why Dual Agent Therapy?

Median Overall Survival metastatic CSPC





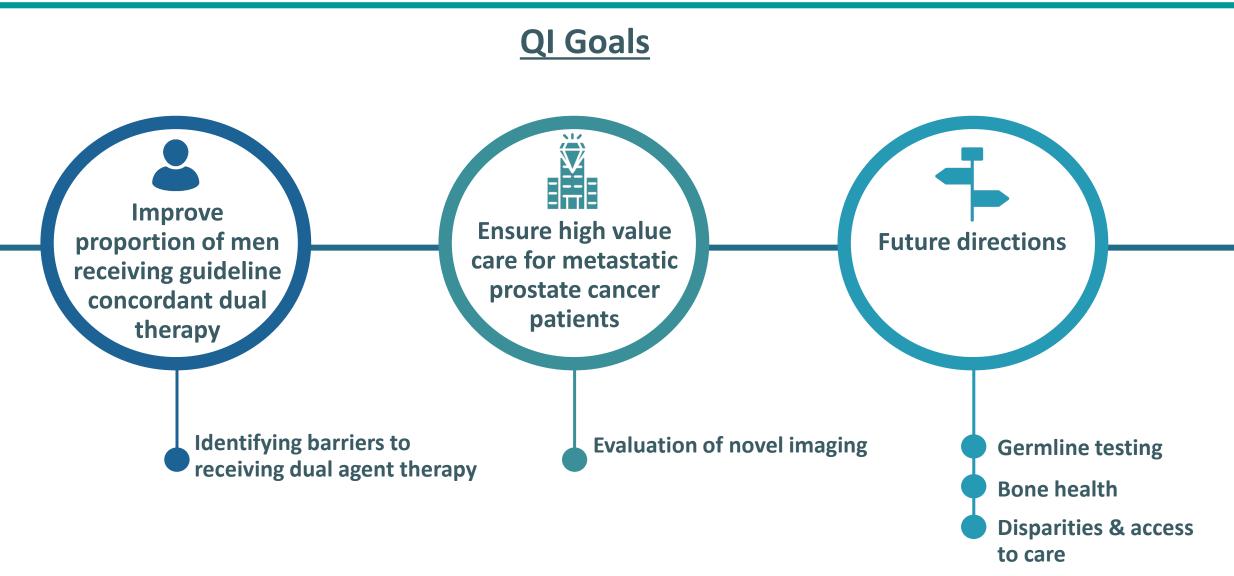
TRIPLET THERAPY

Median Overall Survival metastatic CSPC





Improve Management of Advanced Prostate Cancer men in MI







Pilot with a few practices



Implement and train abstractors on new data variables





Update on Renal Mass Biopsy

Brian Seifman, MD



MUSIC-KIDNEY: Current Status



20 Practices







8 peer reviewed manuscripts



>4,500 T1 renal mass cases



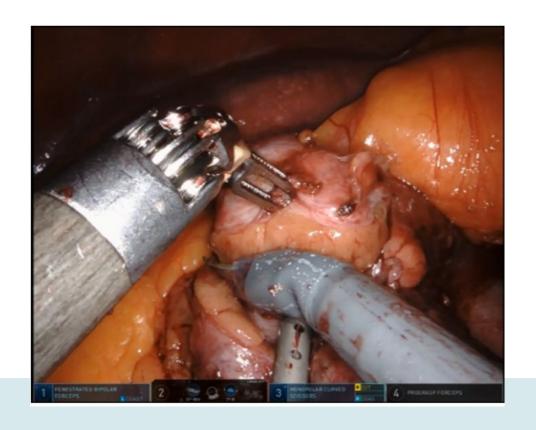
8+ QI Initiatives

90+ Urologists



Partial Nephrectomy Video Review

- Goal: Improve technical skills for surgeons performing robotic partial nephrectomies
 - ➤ Deidentified peer video review process
 - ➤ 28 videos submitted from 9 different surgeons



To submit a video: Contact Mahin Mirza, mmahin@med.umich.edu



Goals of MUSIC-KIDNEY



- Optimize management of T1 renal masses (RM)
 - Appropriate use of additional imaging, RMB, and surveillance





- Avoidance of costs and morbidity of unnecessary intervention
 - Such as surgery for nonmalignant pathology (NMP)





Increase the appropriate use of renal mass biopsy (RMB)



Renal Mass Biopsy Outcomes

- Performed for 18.1% of T1RM (626 of 3467)
 - Rising from 14.8% in 2017 to 18.8% in 2021
- Diagnostic rate: 91.7%
 - 75.6% cancer
 - 16.1% benign
 - 8.3% indeterminate

- RMB decreases benign path rate at surgery
 - 13% without RMB vs. 5% after prior RMB

EUROPEAN UROLOGY OPEN SCIENCE 30 (2021) 37-43

available at www.sciencedirect.com
journal homepage: www.eu-openscience.europeanurology.com



European Association of Urology

Kidney Cancer

Utilization of Renal Mass Biopsy for T1 Renal Lesions across Michigan: Results from MUSIC-KIDNEY, A Statewide Quality Improvement Collaborative

Amit K. Patel a,* , Brian R. Lane b,c , Prateek Chintalapati d , Lina Fouad d , Mohit Butaney a , Jeffrey Budzyn a , Anna Johnson e , Ji Qi e , Edward Schervish f , Craig G. Rogers a

N=626	n (%)
ED Visit	23 (3.7%)
30 Day Readmission	14 (2.2%)
Overnight Hospital Stay	33 (5.3%)



Consequences of not doing RMB

Unnecessary Surgeries

Lost Kidney Function



 Complications, healthcare utilization, re-admission

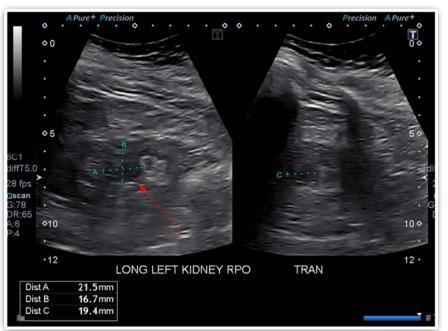
 CKD, increased cardiovascular disease and mortality



Case Study: Patient with T1a RM

- 55-year-old woman seen in the ED with left flank pain.
- Found to have suggestion of 2.2 cm mass on non-contrast CT (no stones or hydro)
- F/u imaging with renal US and MRI and referred to Urology

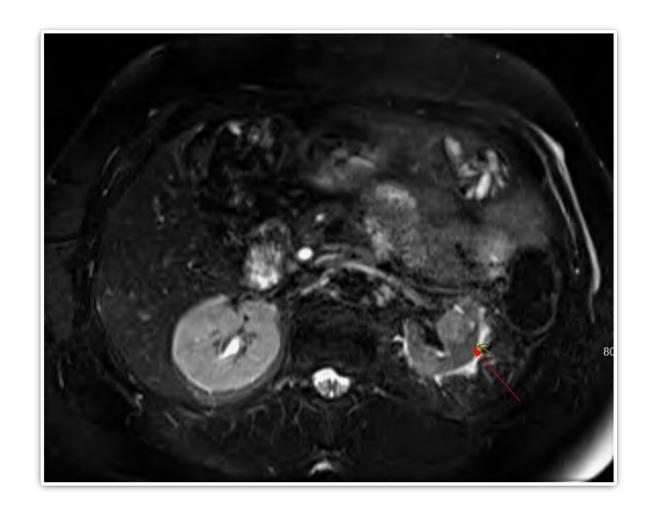






Case Study: Patient with T1a RM

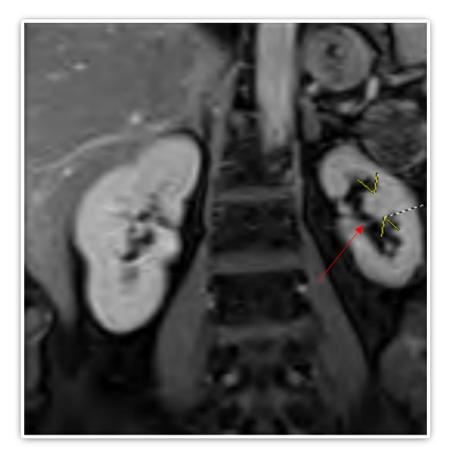
- MRI report: "2.0 cm enhancing solid mass"
- History of post-op infections
- 2 prior abdominal surgeries
- Renal fxn: Cr 1.21, GFR 46, UA: no protein
- Surgeon recommended RMB
- Pt insisted on surgery (rather than biopsy)
- Minimally-invasive Radical Nx performed





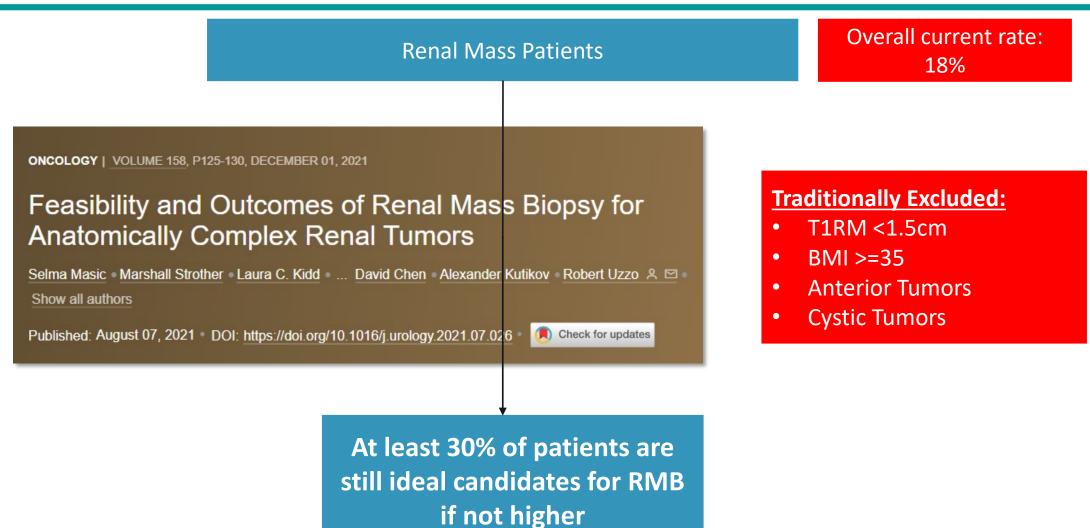
Case Study: Patient with T1a RM

- Final pathology (radical nephrectomy):
 Atrophic kidney with arterial nephrosclerosis, chronic interstitial inflammation and fibrosis
- No evidence of neoplasm
- Post-op GFR: 39 ml/min (new-onset GFR<45)
- Patient could have avoided an unnecessary procedure and loss of kidney with RMB



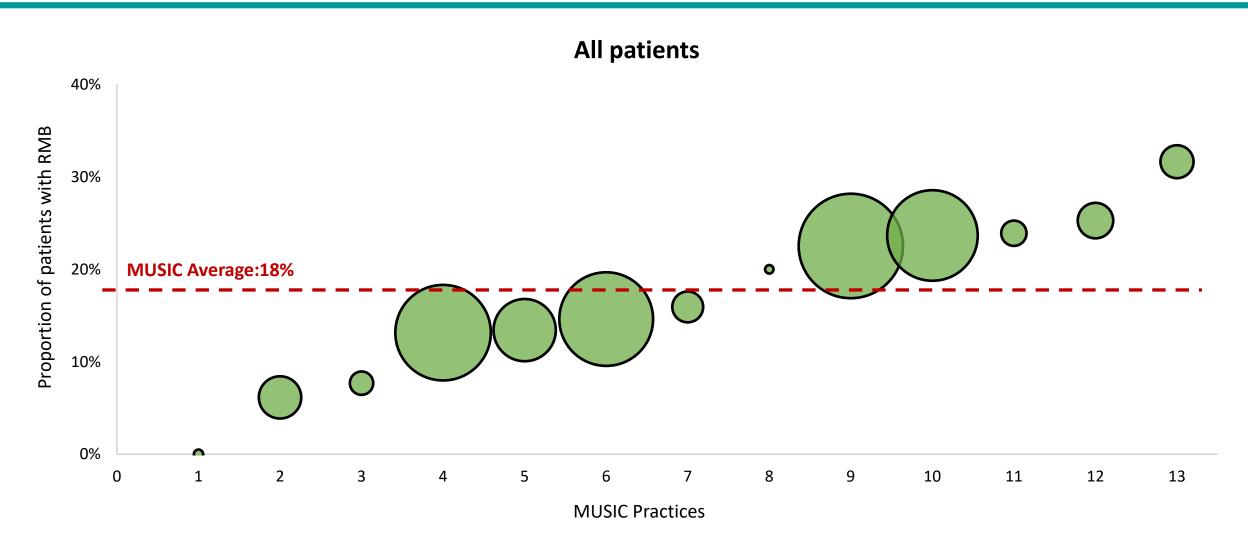


Perceived Barriers for RMB



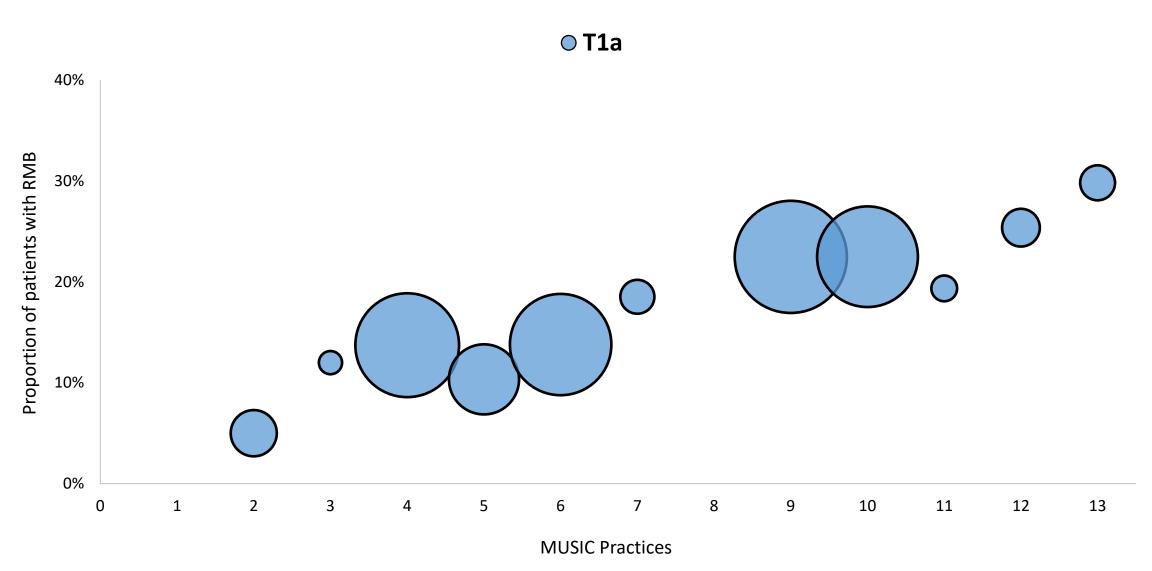


Wide Practice Level Variation in RMB



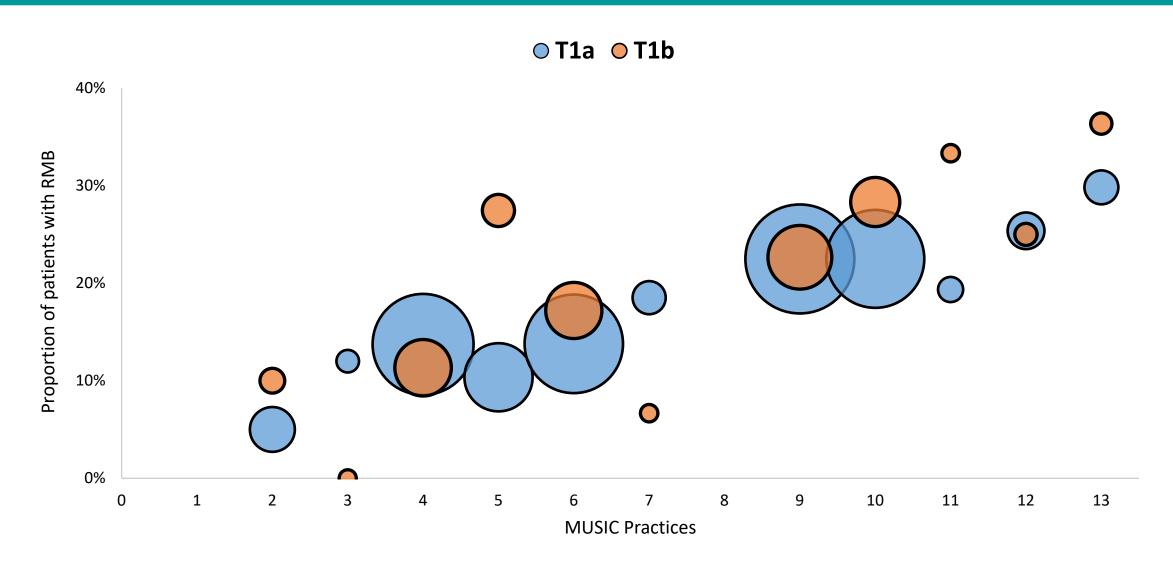


Wide Practice Level Variation in RMB





Wide Practice Level Variation in RMB





Practical Consideration for RMB: Case Based Discussion

Craig Rogers, MD Brian Lane, MD, PhD



- Healthy 61-year-old man with 1.5 cm mass
- sCr 1.3
- GFR 54 with this contrast-enhanced CT performed in the ED for abdominal pain



©2022, Michigan Urological Surgery Improvement Collaborative



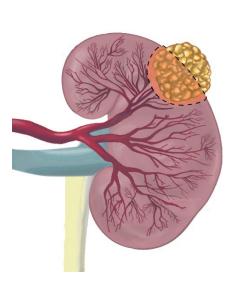
Factors in Decision Making, Please Help by Documenting

Tumor complexity (RENL)

• Nature of the lesion (suspicious, indeterminate, benign)

Amenability to PN (or challenging PN or not amenable)

• <u>Assessment of volume preservation</u>: % of kidney that could be preserved if a PN (or TA) were performed

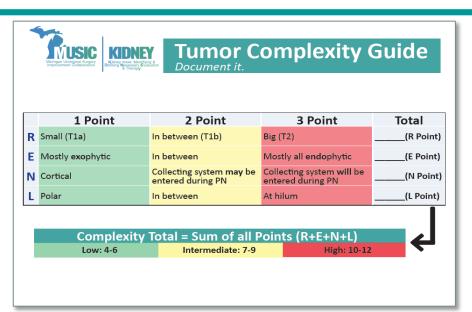


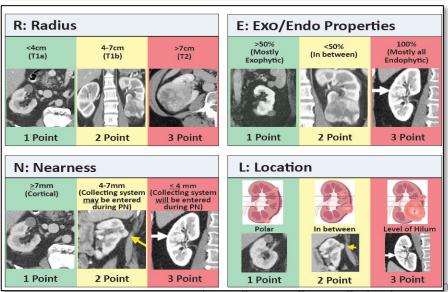


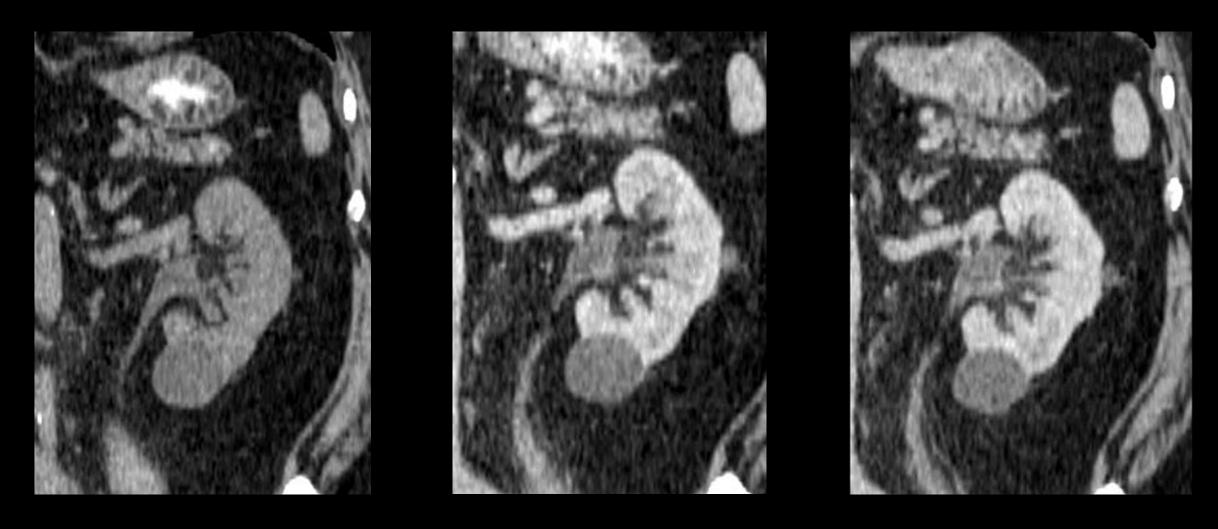
RENL Scoring

- RENL Score is associated with treatment decision and pathological outcomes regardless of tumor size
- RENL documentation in MUSIC KIDNEY has improved, but still has a long way to go





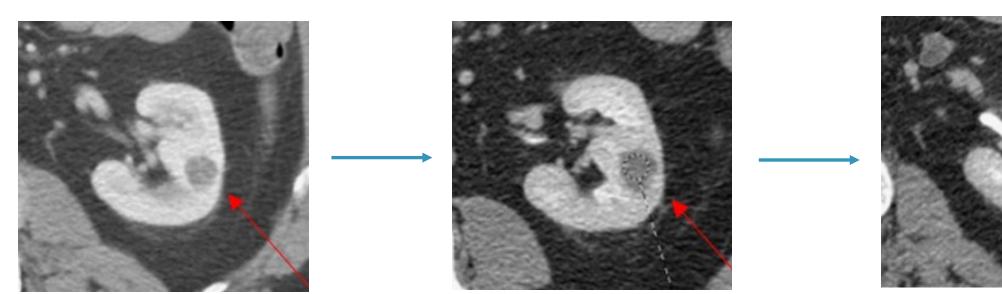




The CORRECT answer is to get additional imaging:
The lesion is brighter than parenchyma on non-contrast CT (hyperdense)
To be enhancing, need BOTH non-contrast and contrast imaging

- Plan: Observe this lesion (no further imaging needed)

- 63-year-old male previously followed on AS for 1.5cm left renal enhancing mass
- Continued follow up imaging showed interval growth to 2.5cm
- RENAL 1,3,3,x,2 (9x); technically challenging PN (endophytic tumor, irregular borders, poor visualization of complete mass on CT)



2020: 1.5cm 2021: 1.6cm

2022: 2.5cm ©2022, Michigan Urological Surgery Improvement Collaborative



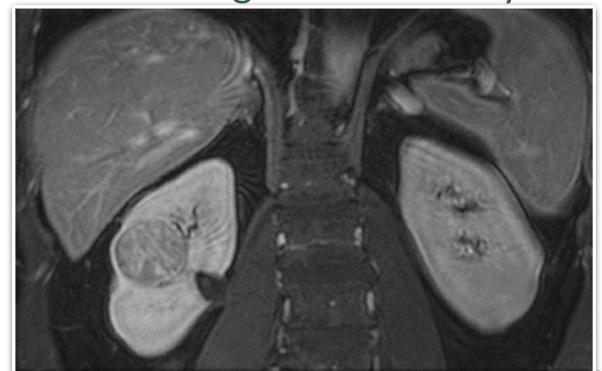
Left kidney mass biopsy done in 2022 showing ccRCC, grade III

- Endophytic appearance of tumor + high grade malignancy on biopsy
 - -> not amenable to PN due to higher risk of PSM and bleeding complications

Plan for RN soon



- 62-year-old male with hypertension and history of elevated PSA (with negative prostate biopsy), GFR 77, UA: no protein
- Recently discovered, 4.3 cm, right renal mass on US for acute onset right lower back pain that he thought was a kidney stone
 - RENAL 11x (2,3,3,x,3)
- Second consultation



hprovement Collaborativ



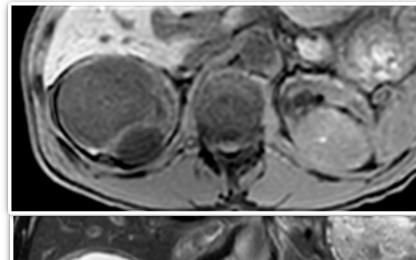
 Patient was recommended a RN after biopsy showing ccRCC grade 2 at initial consultation at OSH

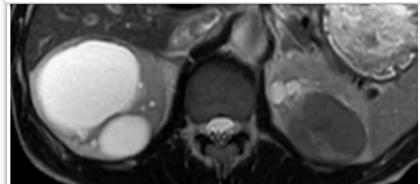
• Successfully underwent a PN (ccRCC grade 2 with NSM, sCr 1.18 and GFR 66 at one month after surgery)



- 53-year-old male with PMHx of uncontrolled HTN and CKD stage IV (Cr 3.02, GFR 27) with left sided renal mass diagnosed on renal US
- MRI showed 5.5 cm solid enhancing left upper pole posterior mass
- Challenging tumor location: RENAL 11p, completely endophytic, posterior upper pole, deep extension to critical structures







Renal mass biopsy showed papillary RCC type I, Fuhrman grade II

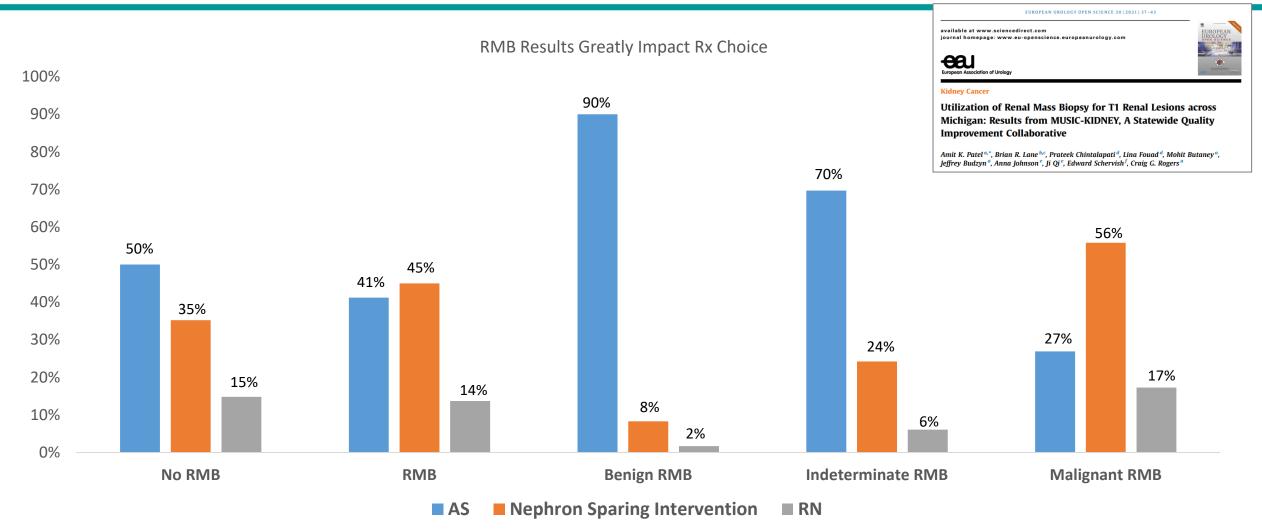
 Complex tumor: > 5cm, completely endophytic, posterior upper pole with deep extension to critical structures

• Patient underwent a RN (5.5 cm, papillary RCC, grade III)

• Update: CKD Stage V – not requiring dialysis (most recent serum Cr improved slightly to 4.7 down from 5.4, pre-op 2.8)

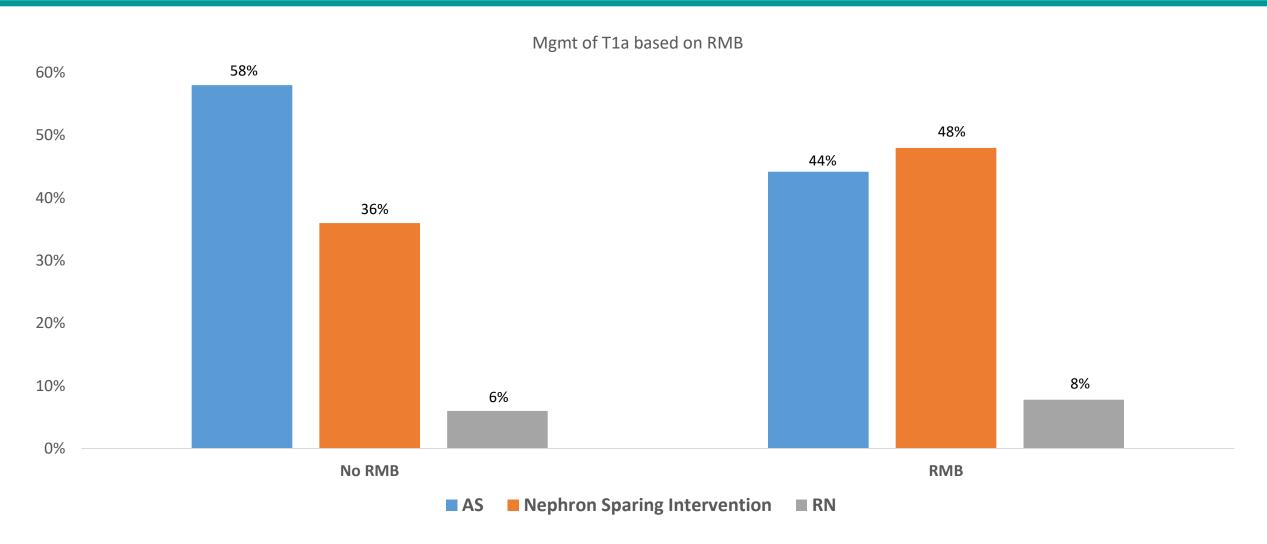


Takeaway #1: RMB results in more appropriate Rx Please strongly consider it when intervention is planned



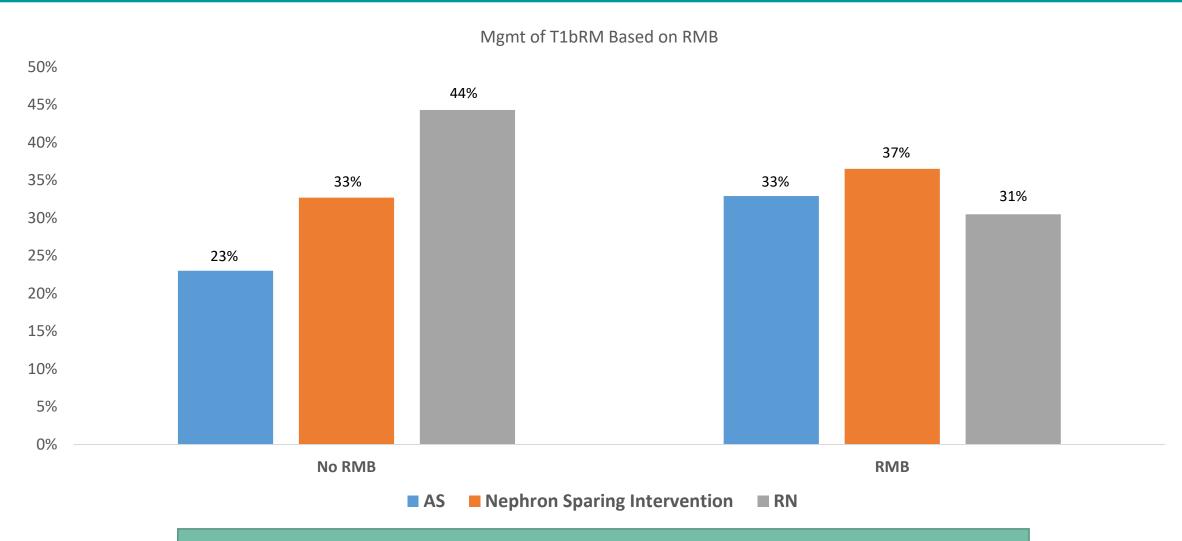


Takeaway #2: RMB may result in more interventions in T1a patients





Takeaway #3: T1b masses ideal for RMB



MUSIC data indicates for every 8 biopsies, 1 kidney will be saved from RN!



Music Optimizing Utility of RMB

- Patient Factors: comorbidities, preference
- Tumor Factors: large, challenging PN (large, endophytic, poorly defined borders), subtype, grade

T1RM



Surveillance Planned

Surveillance and Intervention being considered

Intervention Planned



RMB of limited benefit



(Provides reassurance for surveillance, can clarify pathology, and aid with surgical planning)



- Consider RMB for every single T1 RM patient
- If decision made for surveillance, then probably no need for RMB, get imaging in 3-6mo
- If intervention is being considered, get a RMB (and/or more imaging) to confirm malignancy
 - Benign or reassuring results ('oncocytic neoplasm'): good candidates for surveillance
 - For T1b, RMB may help avoid kidney loss from Radical Nx
 - MUSIC data indicates for every 8 biopsies, 1 kidney will be spared!



Closing Remarks

Khurshid Ghani, MD

• Pre-stented patients are a unique opportunity for stent omission

• Grade Group 2 of 2022 is not the same as GG2 of the 2000s

Active Surveillance is appropriate for select men with GG2 disease

• Improve management for men with metastatic prostate cancer in MI

Consider renal mass biopsy for T1 renal mass patients

• If intervention is being considered, get a RMB to confirm malignancy

 For T1b patients, biopsy can be critical in determining radical vs nephrectomy – and prevent patients from losing their kidney



THANK YOU

