



Collaborative-Wide Meeting

October 18, 2024



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

Welcome

Khurshid Ghani, MD, MS, FRCS

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

Agenda

- Welcome & General Updates
- **Prostate** – Persistent and Biochemically Recurrent Cancer after Prostatectomy
- **KIDNEY** – Initial Dive into Cancer-Specific Outcomes
- **Keynote** – Physician Wellness and WellPrept Pilot
- **Lunch**
- **BPH** – QI Opportunities
- **ROCKS** – Improving URS Practice: Lessons from an Ongoing Clinical Trial
- Closing Remarks
- **Data Abstractor Session** – Arbor Research Training





>120 Publications

**10 International
Webinars**

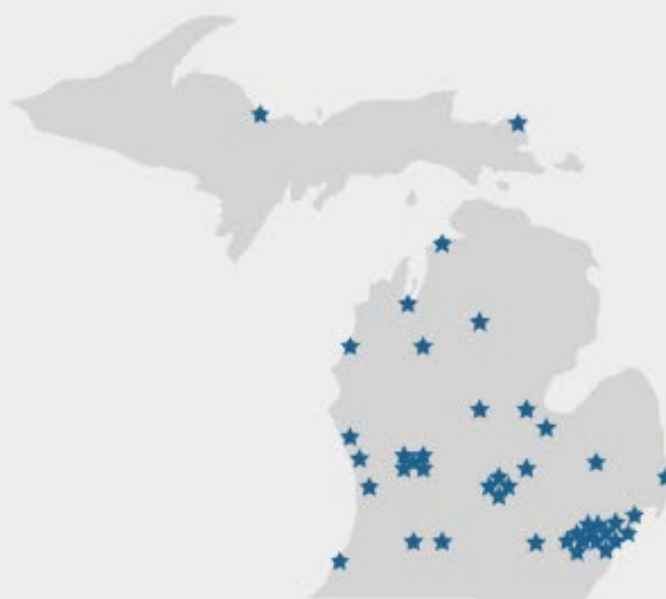


**4 Clinical Trials
>\$6M Funding**

**>\$100M Healthcare
Cost Savings**



Impact of



**43 MI Practices
3 Non-MI Practices**



>270 Urologists

15 Patient Advocates



**>25,000 Patients'
Lives Improved**

Thank You! COORDINATING CENTER STATISTICIANS



Rod Dunn



Stephanie
Daignault-Newton



Sabir Meah



Junzhi Sun



Caitlin Seibel

Welcome! MEMBERS and GUESTS



Guest Speakers



David Canes
Lahey Hospital and Medical Center



Daniel Krauss
Corewell Health

MUSIC Urologist



Henry Rosevear
Michigan Institute of Urology

Guest

- Lei Wang, MD

Patient Advocates

- Doug Adams

BCBSM Partners

- Marc Cohen
- Emily Santer
- Monica Whitted

Updates

Congrats Dr. Miller!



The University RECORD

News for faculty, staff and retirees

September 19, 2024

Share on: [X](#) [f](#)

David Miller to become EVP for medical affairs, Michigan Medicine CEO

Known for a spirit of continuous improvement, he'll start July 2025



Clinical Registry Transition



- Moving to Arbor Research to improve data collection
- Abstractor training begins today
- Go-live 11/11



*In God we Trust.
All others must
bring Data.*
-Dr. Robert Fletcher,
Patient Advocate, quoting
W. Edwards Deming

BLUES Clinical Trial Completes Enrollment!

Thank you very much!



HENRY
FORD
HEALTH



250
Patients
Enrolled!



NCT#05026710

PCP Engagement & Working Group

Payment

BCBSM uplift payments for PCPs involved in specific aspects of urologic care

Templating

EHR templating for urologists in their communications to PCPs

Educational Materials

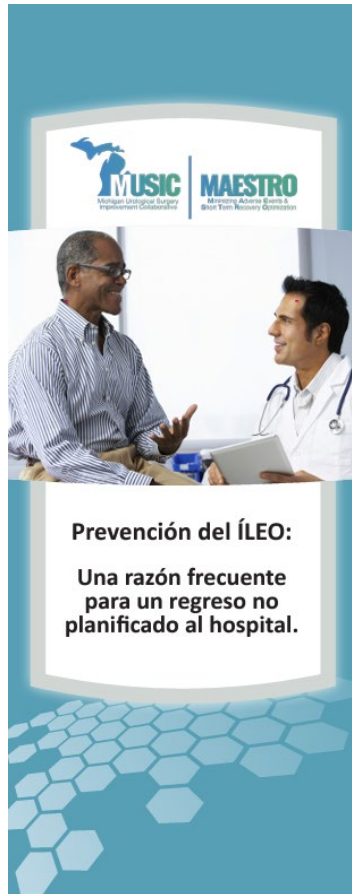
PCP education around specific urologic guidelines

Central Hub

Physician and patient education available via a single website



Spanish Resources Now Available



Stent uretral: Qué esperar y cómo manejarlo

¿Qué es un stent uretral?
Un stent uretral es un tubo plástico, flexible y hueco que ayuda al riñón a drenar la orina después de una cirugía de cálculos renales.

¿Cuándo se necesita un stent uretral?
Se coloca un stent si su urólogo piensa que la orina podría no drenarse bien después de una cirugía de cálculos renales. Los stents se colocan frecuentemente para evitar que fragmentos de piedra o uretrales puedan dejarse con o sin un hilo.

¿Qué puedo esperar como síntomas después de la cirugía?
Es muy común que los stents causen síntomas después de la cirugía. Puede presentar algunos de los siguientes síntomas:

- Frecuencia y urgencia urinaria
- Ardores al orinar
- Un poco de sangre en la orina (que parece limonada rosada o ponche rojo)
- Sensación de vaciado incompleto de la vejiga
- Malestar o dolor en la vejiga, al abdomen inferior y/o la parte baja de la espalda.

Cómo manejar los síntomas del stent

Medicamentos como Tamsulosina (por ejemplo, Flomax) han demostrado reducir el dolor.

Usar una almohadilla térmica o tomar un baño caliente para aliviar el dolor.

Beber mucha agua.

Los medicamentos para el dolor pueden ser útiles para reducir el malestar o el dolor.

¿Esto afectará las actividades diarias?
Puede reanudar su rutina física normal. Si observa un aumento de sangre en la orina al aumentar la actividad, descanse y beba mucha agua.

Actividades laborales, vida social y viajes: Tener un stent no debería afectar las actividades laborales, la vida social o los viajes. Si tiene síntomas urinarios, es posible que necesite usar el baño con más frecuencia.

Sexo: Tener un stent no debería afectar su vida sexual. Sin embargo, si tiene un stent con un hilo que sale fuera del cuerpo a través de la uretra, las actividades sexuales pueden ser difíciles.

La mayoría de los pacientes tienen algunos de estos síntomas, pero generalmente desaparecen una vez que se retira el stent.

¿Cómo se retira el stent uretral?
El stent suele ser retirado dentro de las primeras dos semanas en la consulta médica. Si el stent fue dejado con un hilo, puede retirarlo en casa o pedirle a su médico que lo retire. Antes de que se retire el stent, beba mucha agua y tome medicamentos para aliviar la dependencia de estos medicamentos.

Manejo del dolor y los síntomas urinarios después de la ureteroscopia

Para eliminar o fragmentar sus cálculos renales, también conocida como cirugía de la cirugía, es posible que sienta cierto grado de dolor o molestia. Los pacientes, estos síntomas se pueden controlar con medicamentos.

Después de la cirugía de cálculos renales

Parte baja del estómago

Sensación de vaciado incompleto de la vejiga

Presencia de sangre en la orina

Frecuencia y/o urgencia urinaria

Estudios por imágenes después de la cirugía de cálculos renales

¿Cómo sé si estoy libre de piedras?
TAC
Rayos X
Ultrasonografía

¿Cómo sé si estoy libre de piedras?
Imágenes después de su cirugía pueden ayudar a determinar si todas las piedras hayan sido removidas de su cuerpo.

¿Cómo sé si estoy libre de piedras?
Si no pueden quedarse atrás, la intervención le puede ayudar. Si el riñón ha vuelto a la normalidad, no causen daño.

¿Cómo sé si estoy libre de piedras?
Si bien después de mi cirugía, las imágenes, incluso si no tiene imágenes, los raros pero graves como la pérdida de la función renal.

MUSIC KIDNEY **Hoja de ruta para pacientes con masas renales T1**

Fase de evaluación

La fase de evaluación conlleva cuatro pasos importantes para determinar si se debe seguir un tratamiento inmediato o una vigilancia inicial para una masa renal de hasta 7 cm (T1):

1. Obtener pruebas adecuadas
2. Estimar la expectativa de vida (LE)
3. Determinar la idoneidad para la vigilancia
4. Participar en la toma de decisiones compartida

Tratar solo si causa síntomas

*Algunos pacientes optarán por el tratamiento incluso si son candidatos a la vigilancia, según su preferencia o incertidumbre sobre la vigilancia.

Paso 1: Obtener pruebas adecuadas

Imágenes de alta calidad (CT o MRI).

Análisis de laboratorio básicos: Cuento sanguíneo completo, CMP, análisis de orina (considerar la relación albúmina:creatinina, CRP).

Imágenes de tórax (como radiografías) si la masa es >3 cm; se prefiere CT torácico si la masa es >5 cm. Considerar biopsia de la masa renal (para masas sólidas y accesibles).

Paso 2: Estimar la expectativa de vida

1. Basándose en cualquier condición médica grave que tenga, puede calcular el puntaje del índice cardiovascular (CVI) (rango: 0-6) asignando puntos de la siguiente manera:

Puntos	Condición
2	Insuficiencia cardíaca congestiva (CHF)
1	Enfermedad renal crónica (CKD)
1	Enfermedad pulmonar crónica, como COPD
1	Accidente cerebrovascular o TIA
1	Otras enfermedades importantes, como insuficiencia hepática o enfermedad vascular periférica (PVD)

2. Hemos desarrollado tablas para masas de 1 a 7 cm, con esquemas de colores para indicar una expectativa de vida estimada de >10 años, entre 6 y 10 años, o entre 1 y 5 años. Esta es la tabla para pacientes con una masa renal de 3 cm:

Sex	Female					Male										
	Age	50	55	60	65	70	75	80	85	50	55	60	65	70	75	80
CVI = 0	[Green]															
CVI = 1	[Green]															
CVI = 2	[Green]															
CVI = 3	[Green]															
CVI = 4	[Green]															
CVI = 5	[Yellow]															
CVI = 6	[Orange]															

■ = Expectativa de vida de >10 años
■ = Expectativa de vida de 6-10 años
■ = Expectativa de vida de 1-5 años

Para información sobre su situación específica, escanee este código QR:

Página 1 de 2

<https://musicurology.com/resources/patient-educational-materials/>

Value Based Reimbursement

2025 (payout) VBR Metrics

Performance Measure	Baseline Performance	Target Performance	Current Performance
PSA testing within 90 days of radical prostatectomy	92%	$\geq 95\%$	93%
Opioid-limited partial and radical nephrectomy	59%	$\geq 60\%$	52%
Ureteral stenting following URS in pre-stented patients	63%	$\leq 62\%$	54%
Radical nephrectomy for benign renal masses	8%	$\leq 6\%$	7%
Renal mass surveillance follow up	45%	$\geq 50\%$	58%
Proportion of smokers who receive smoking cessation counseling	82%	$\geq 85\%$	81%
Proportion of smokers who quit smoking at 3 months post-RP	27	$\geq 30\%$	31%

MUSIC members will be eligible for a 2% VBR uplift in 2025

2026 Standard VBR (3%): Collaborative-Wide



Population-based Performance Measure	Baseline Performance	Target Performance
Prostate: Active Surveillance Follow-Up	87%	$\geq 89\%$
ROCKS: Post-URS Ureteral Stent Duration	15%	$\leq 13\%$
KIDNEY: Active Surveillance Follow-Up	29%	$\geq 35\%$

COLLABORATIVE must meet 2 of 3 metrics

2026 **Additional** VBR (2%): Practice-Level






Population-based Performance Measure*	Baseline Performance	Target Performance
Prostate: Post-RP PSA	89%	≥ 92%
ROCKS: PRO Enrollment	54%	Current practices: Maintain or improve by 5% New Practices: ≥ 30%
KIDNEY: Opioid-limited Partial and Radical Nephrectomy	52%	Maintain or improve by 5%

PRACTICES must meet 1 of 3 metrics

2026 Smoking Cessation VBR (2%): Collaborative-Wide

- Data collected via RP PRO surveys
- Metrics
 - Pre-op cessation counseling for smokers
 - Smokers who quit by 3 months post-op
- Resources available on MUSIC website

YOU CAN QUIT SMOKING RESOURCE GUIDE					HBOM HBOMich.org
TREATMENT		HOW TO GET	HOW TO USE	PROS / CONS	NOTES
 <p>MICHIGAN TOBACCO QUITLINE 1.800 QUIT.NOW 784.8669</p> <p>Get FREE Confidential Counseling & Support</p> <p>DOUBLE your chances of quitting.</p> <p>Call Now 1.800.QUIT.NOW</p> <p>Or Enroll Online michigan.quitlogix.org</p> <p>LEARN MORE</p> 	PATCH	 OVER THE COUNTER or PRESCRIPTION	REPLACE PATCH ONCE DAILY	✓ Easy to use ✓ Few side effects ✗ Less flexible dosing ✗ Slow nicotine release	
	GUM	 OVER THE COUNTER or PRESCRIPTION	USE AS NEEDED* Up to 24 pieces per day	✓ Fast nicotine release ✓ Flexible dosing ✗ Lots of chewing ✗ Can't eat or drink 15 mins before or during use	
	LOZENGE	 OVER THE COUNTER or PRESCRIPTION	USE AS NEEDED* Up to 20 lozenges per day	✓ More nicotine than gum ✓ Flexible dosing ✗ Can cause nausea ✗ Can't eat or drink 15 mins before or during use	
	NASAL SPRAY	 PRESCRIPTION	SPRAY ONCE IN EACH NOSTRIL* Up to 40 doses per day (80 sprays/day or 10 sprays/hour)	✓ Fastest nicotine delivery ✓ Flexible dosing ✗ Frequent use necessary ✗ Can cause nose & throat irritation	
	INHALER	 PRESCRIPTION	5-20 MIN SESSIONS THROUGHOUT THE DAY* Up to 16 cartridges per day	✓ Keeps hands busy ✓ Flexible dosing ✗ Frequent use necessary ✗ Can cause mouth & throat irritation	
	MEDICATION VARENICLINE BUPROPION	 PRESCRIPTION	USE AS DIRECTED BY YOUR DOCTOR	✓ Easy to take pill ✓ Can be combined with other treatments* ✗ Possible side effects	

COLLABORATIVE must meet 2 of 2 metrics

2026 VBR **Participation:** Physician-Level



Each **physician** must do at least 1 of the following from July 1, 2024 – June 30, 2025 to earn any VBR:

- 1) Attend a collaborative-wide meeting
- 2) Attend a skills workshop
- 3) Attend your MUSIC site visit
- 4) View your reports in the registry (coming in 2025)

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Persistent and Biochemically Recurrent Cancer after Prostatectomy

Understanding and Managing the Challenges



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of the Blue Cross and Blue Shield Association

Two patients undergo prostatectomy
for localized disease

Patient 1

Pathology shows T3bN0, GG4,
multifocal positive margin

PSA is 0.3 six weeks after RP

Patient 2

Pathology shows T2Nx, GG2

Undetectable PSA for 3 years, rises
from 0.12 to 0.3 over next 2 years

Should they be treated differently?

More Than Words: Defining Adjuvant, Consolidative, and Salvage Treatment after RP

Clinical state	Definition of clinical state	Treatment recommendation
Undetectable PSA after RP: Absence of disease with low clinical suspicion	Undetectable PSA Favorable pathology	Surveillance
Undetectable PSA after RP: Absence of disease with high clinical suspicion	Undetectable PSA Concerning pathology <ul style="list-style-type: none"> o pN+ o ISUP grade group 4-5 AND pT3b-4 ± positive margin 	Surveillance or adjuvant therapy
PSA persistence after RP: Persistence of disease with low clinical suspicion	Detectable PSA immediately after RP Favorable pathology Absence of radiographic evidence of disease	Surveillance or consolidative therapy
PSA persistence after RP: Persistence of disease with high clinical suspicion	Detectable PSA immediately after prostatectomy Concerning pathology <ul style="list-style-type: none"> o pN+ o pT3-4 ± positive margin o ISUP grade group 3-5Radiographic evidence of disease on molecular imaging 	Consolidative therapy
PSA recurrence after RP: Biochemical recurrence	Period of undetectable PSA followed by detectable PSA	Salvage therapy (early) or surveillance
Metastatic disease	Evidence on conventional imaging or pathology	Management of metastatic prostate cancer

ISUP = International Society of Urological pathology; RP = radical prostatectomy; PSA = prostate-specific antigen.

Tailoring Treatment for Similar Patient Populations —

Persistently Positive (PP)

Initial PSA 0.14 or higher

Biochemical Recurrence (BCR)

PSA rise to 0.2 from <0.1





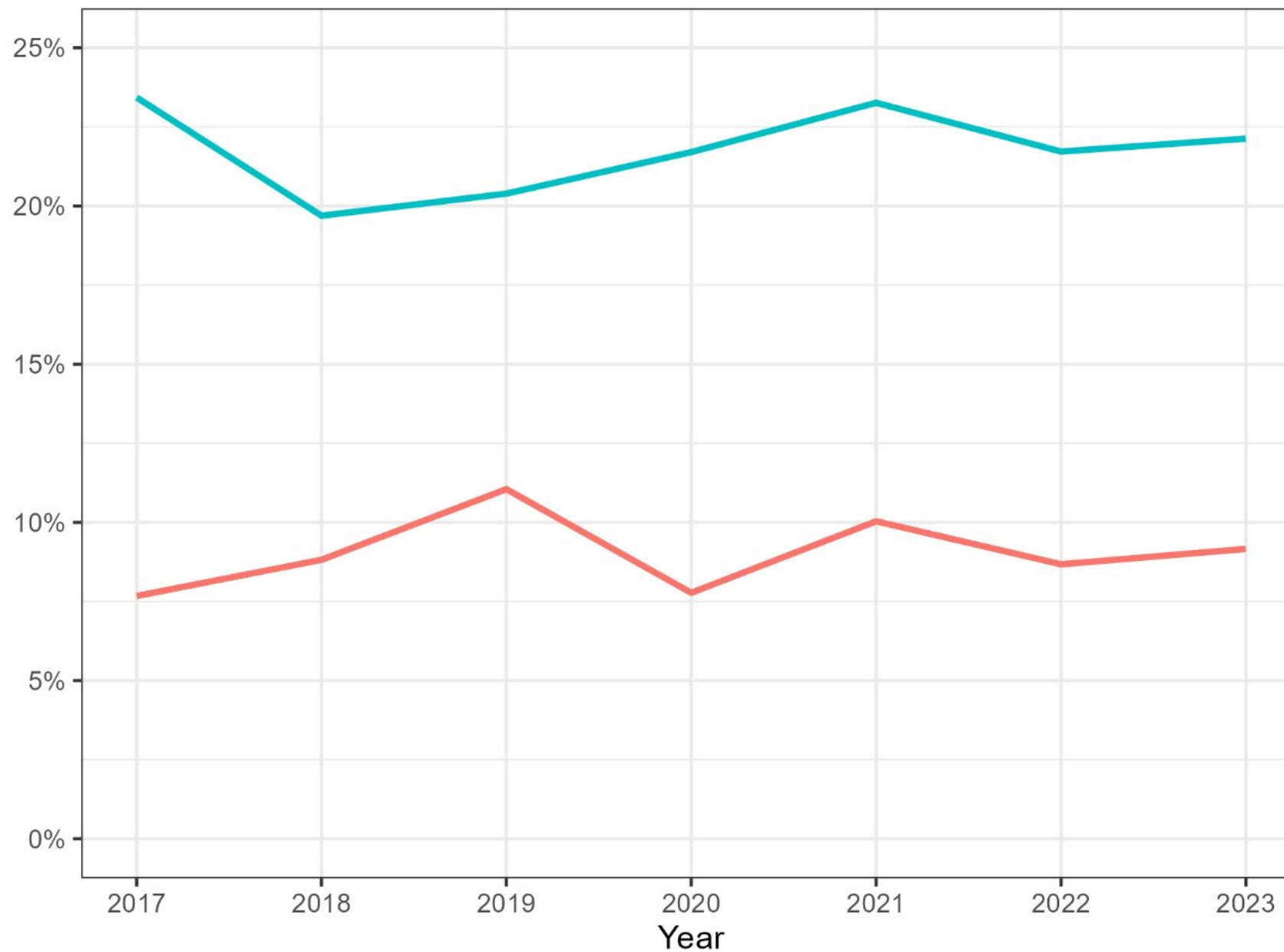
2023 AUA Guideline:

Patients should be informed that the development of a PSA recurrence after surgery is associated with a higher risk of development of metastatic prostate cancer or death from the disease.

Congruent with this clinical principle, physicians should regularly monitor PSA after radical prostatectomy to enable early administration of salvage therapies if appropriate. (Clinical Principle)

Between 30 and 40% of Patients Have Residual Cancer (PP or BCR) -

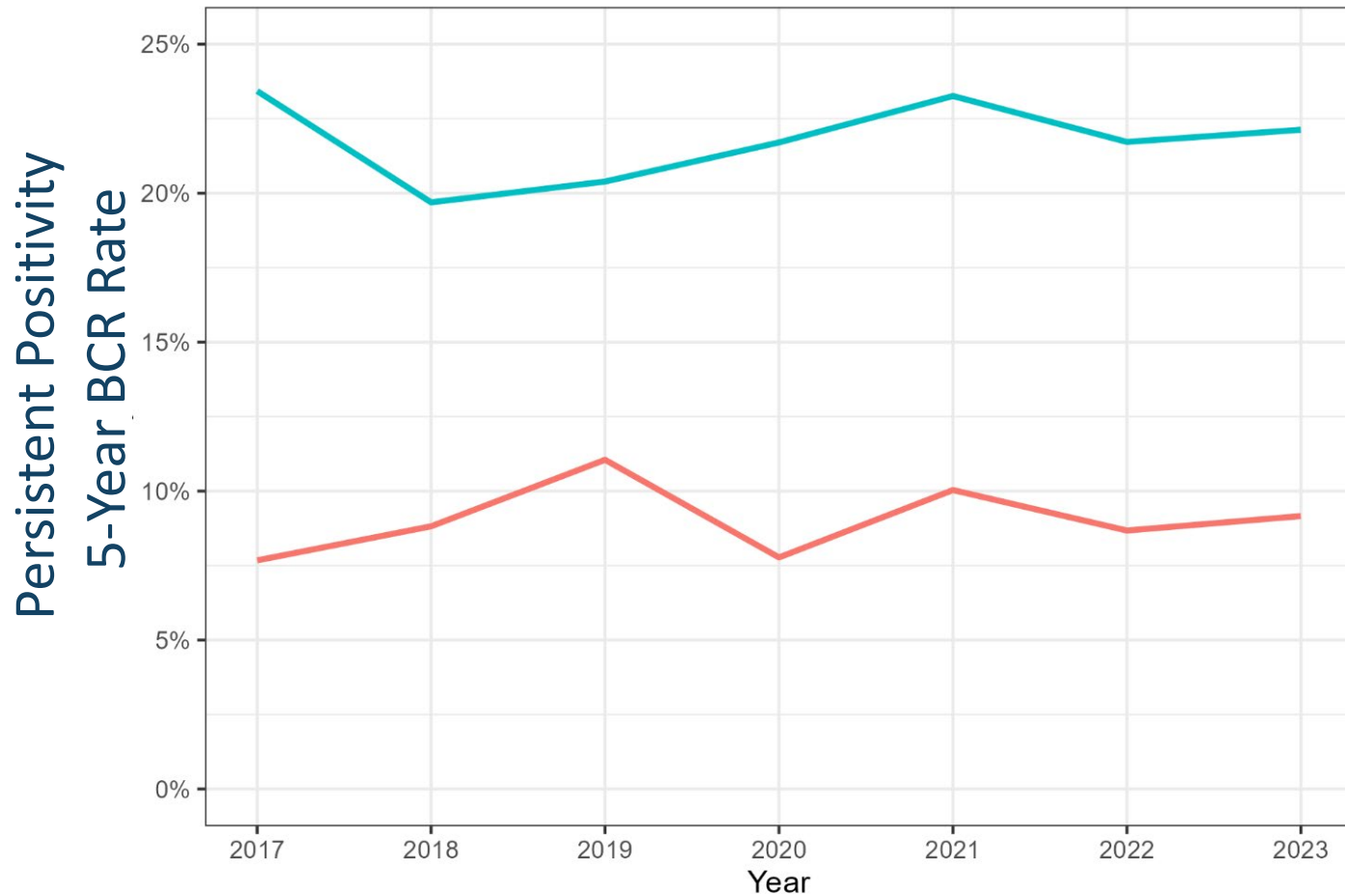
Persistent Positivity
5-Year BCR Rate



BCR

PP

One Third of Patients Have Cancer Post RP



BCR

MUSIC Rate of PP
and BCR is 20%

Predicted Rate is
around 33%

PP

Missing ~10%
of patients

Missing ~10% of RP patients with BCR

because we only have post-RP PSAs on

73% → 51%

of patients at 2 years

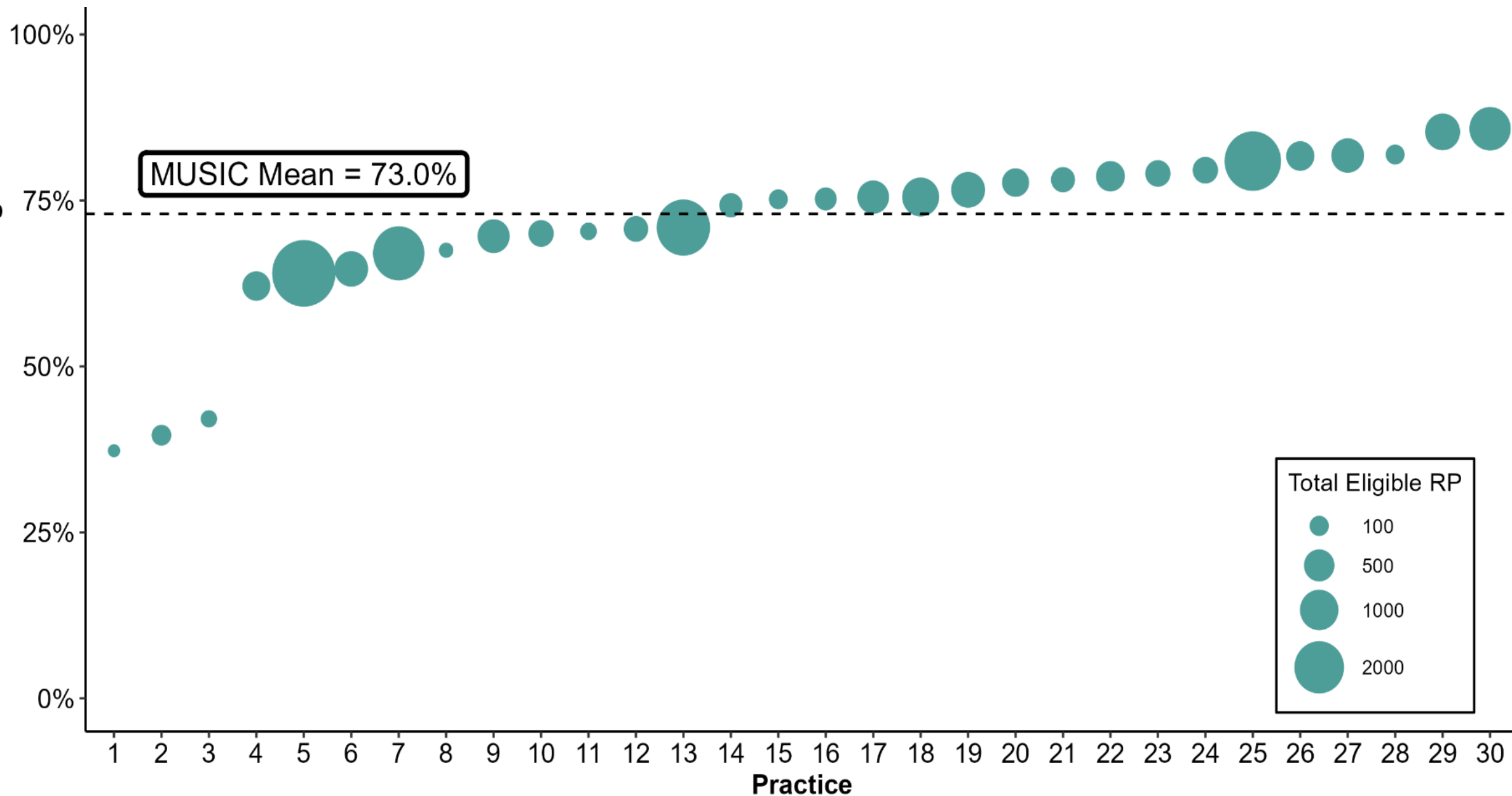
of patients at 4 years



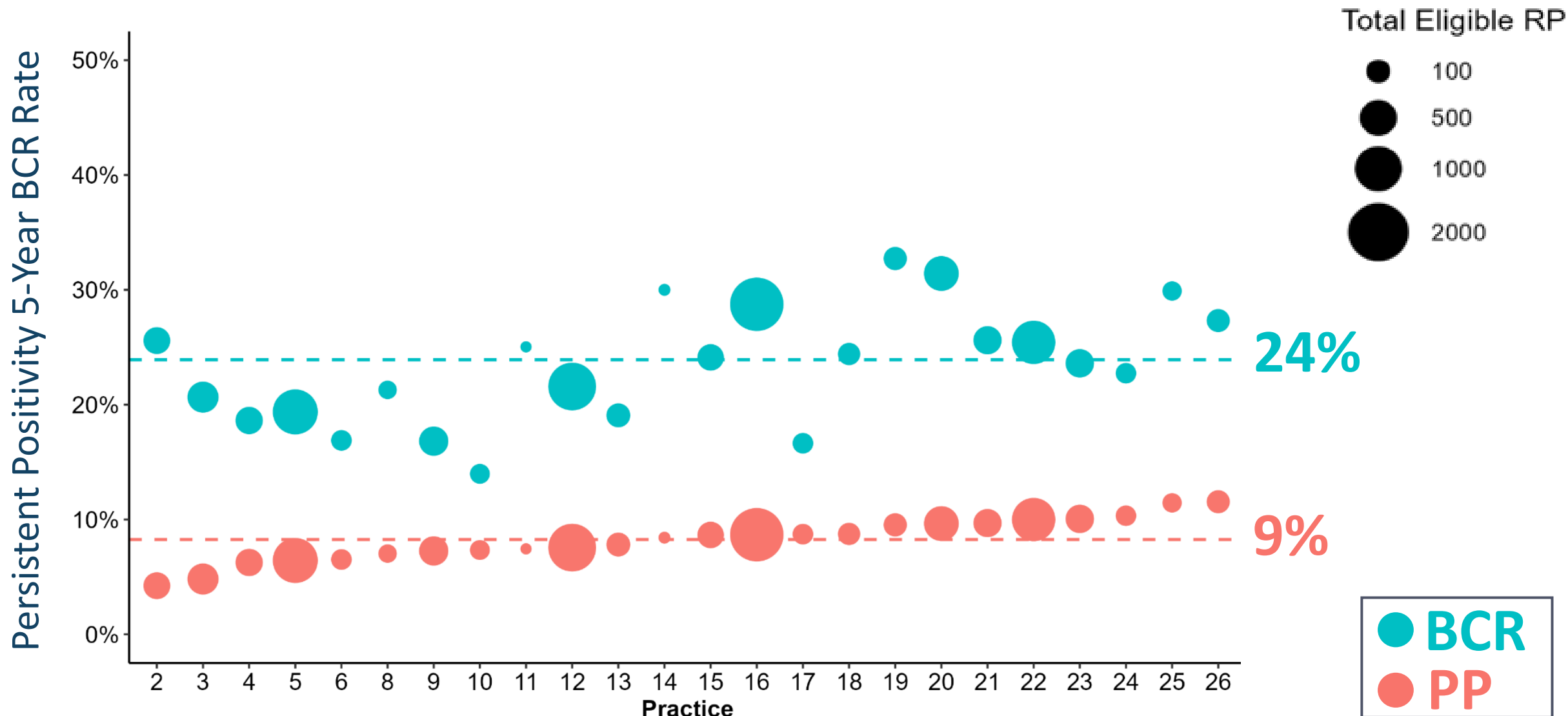
Practice Variation: 2 Year Post-RP PSA Rate

2-Year Post-RP PSA Following Rate

MUSIC Mean = 73.0%



Practice Level Variation: PP and 5-Year BCR



PP and BCR Patients Differ in Pre-Operative Risk

Characteristic	PP N = 1,720	BCR N = 2,617 ¹	p-value ²
Clinical T-Stage			<0.001
T1	938 (55%)	1,595 (61%)	
T2	540 (31%)	757 (29%)	
T3	70 (4.1%)	47 (1.8%)	
Tx	167 (9.7%)	211 (8.1%)	
Pre-Operative PSA	9 (6, 16)	7 (5, 10)	<0.001
Pre-Operative PSA			<0.001
<10	890 (55%)	1,876 (75%)	
10-20	449 (28%)	464 (19%)	
20-50	230 (14%)	150 (6.0%)	
>50	59 (3.6%)	17 (0.7%)	
NCCN Risk Group			<0.001
Very Low	12 (0.7%)	24 (0.9%)	
Low	66 (3.9%)	161 (6.2%)	
Favorable Intermediate	153 (8.9%)	408 (16%)	
Unfavorable Intermediate	583 (34%)	1,160 (45%)	
High	318 (19%)	314 (12%)	
Very High	582 (34%)	539 (21%)	

Persistently Positive
more likely with

Stage cT3

PSA >20

High or Very High Risk

PP and BCR Patients Differ in Pathologic Risk

Characteristic	PP N = 2,715 ¹	BCR N = 2,118 ¹	p-value ²
Surgical Grade Group			<0.001
1	41 (2.4%)	92 (3.5%)	
2	385 (22%)	1,016 (39%)	
3	567 (33%)	889 (34%)	
4	206 (12%)	205 (7.9%)	
5	513 (30%)	397 (15%)	
Pathological T-Stage			
T2	436 (25%)	1,144 (44%)	
T3a	600 (35%)	976 (37%)	
T3b	654 (38%)	491 (19%)	
T4	27 (1.6%)	5 (0.2%)	
Extraprostatic Extension	1,208 (70%)	1,384 (53%)	<0.001
Seminal Vesicle Invasion	683 (41%)	499 (19%)	<0.001
Positive Surgical Margins	1,026 (60%)	1,315 (50%)	<0.001
Pathological N-Stage			<0.001
N0	1,205 (70%)	2,088 (80%)	
N1	329 (19%)	150 (5.7%)	
Nx	186 (11%)	379 (14%)	
Pathological GG4/5 <u>AND</u> T-Stage 3/4	627 (36%)	439 (17%)	<0.001

**Persistently Positive patients
more commonly have**

RP Grade Group 4-5

Stage pT3b - 4

Margin Status

Nodal Disease

Metastatic Cancer and Death Occur in Patients with PSA Recurrence



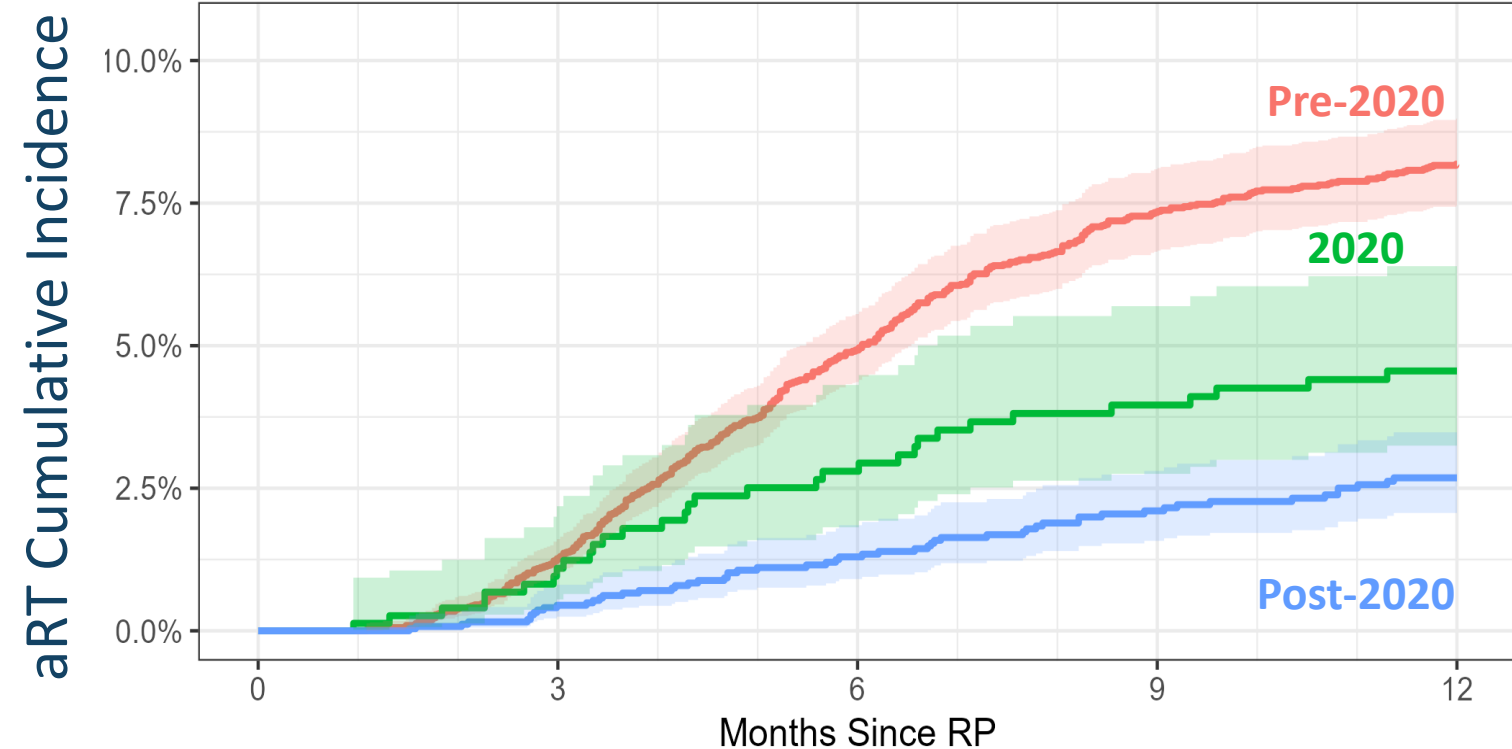
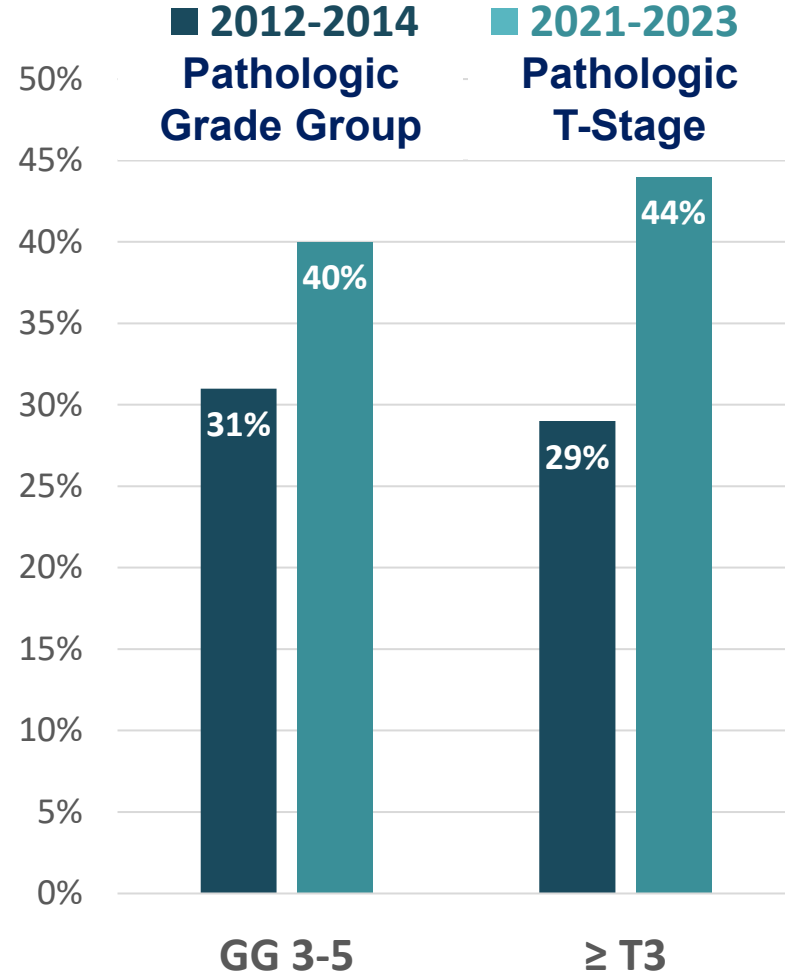
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Metastatic Cancer and Death Occur in
Patients with **PSA Persistence**

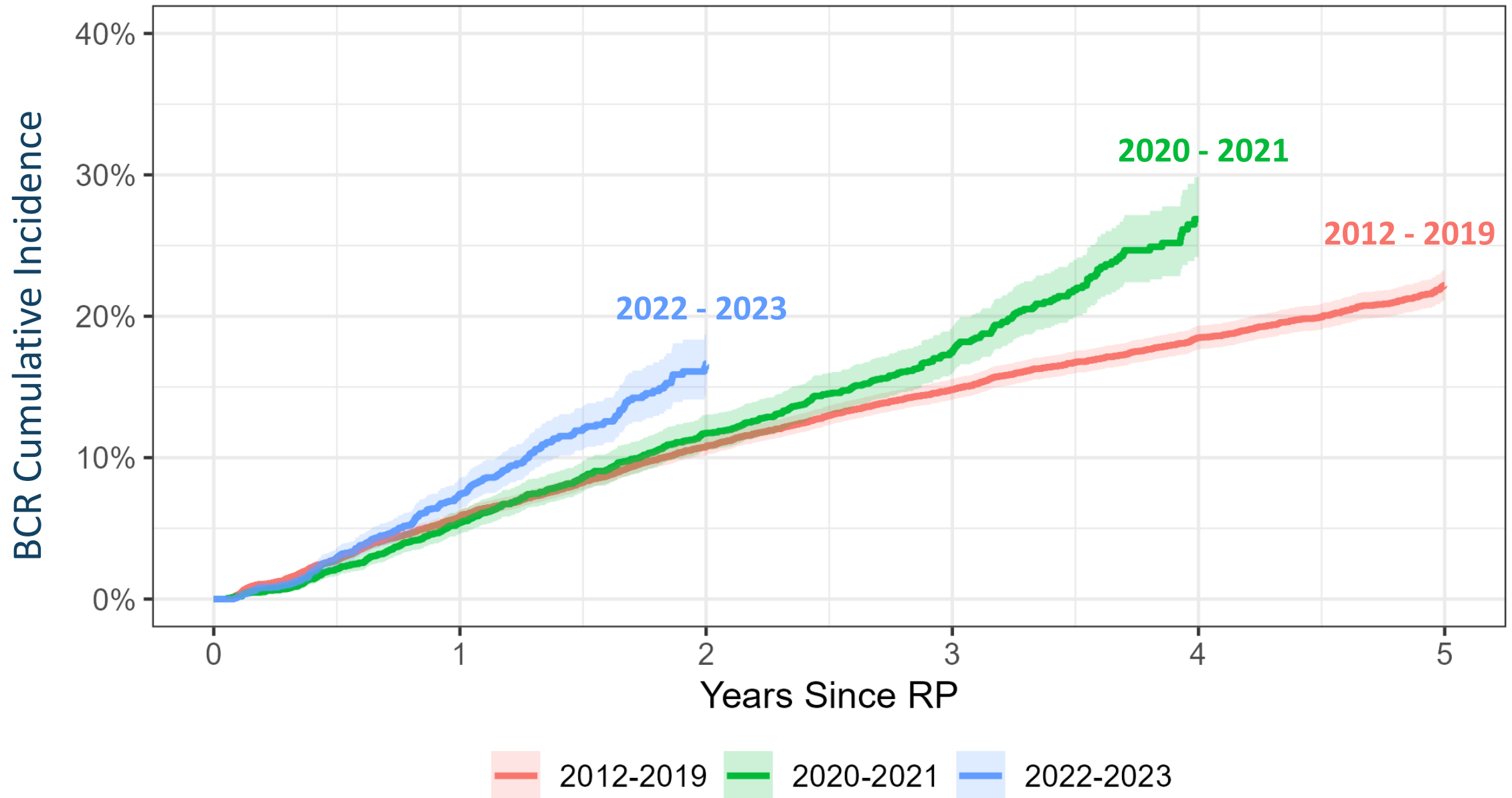
Post-RP Cancer Becoming a Worse Problem



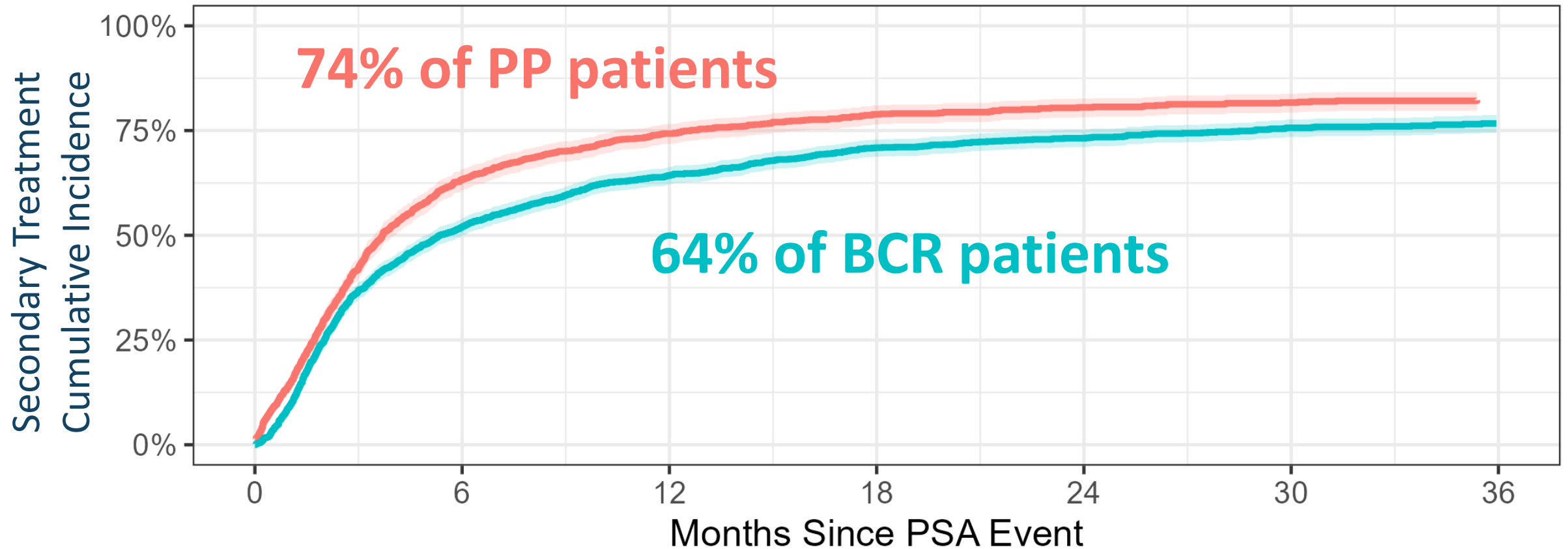
**9% increase in Grade Group 3-5
and
15% increase in $\geq T3$ Disease**

Less adjuvant treatment since 2020

BCR Increasing in Recent Years

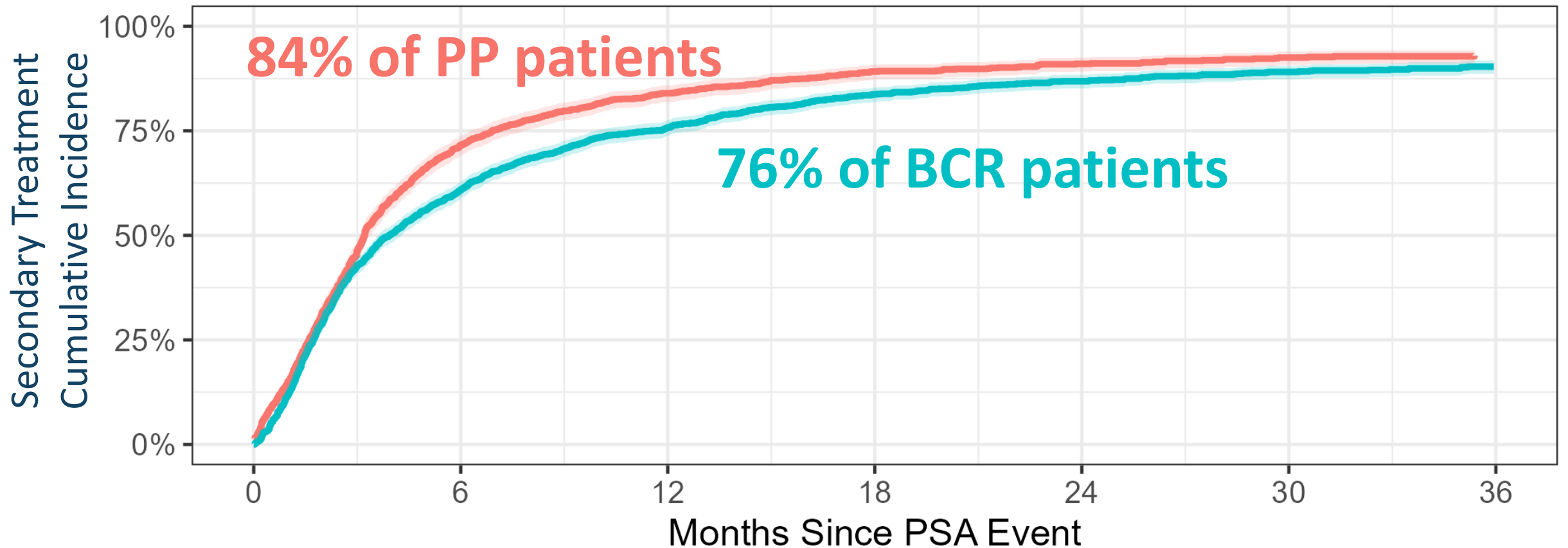


Treatment at 1-Year from PSA Event



BUT, we know we under capture treatment

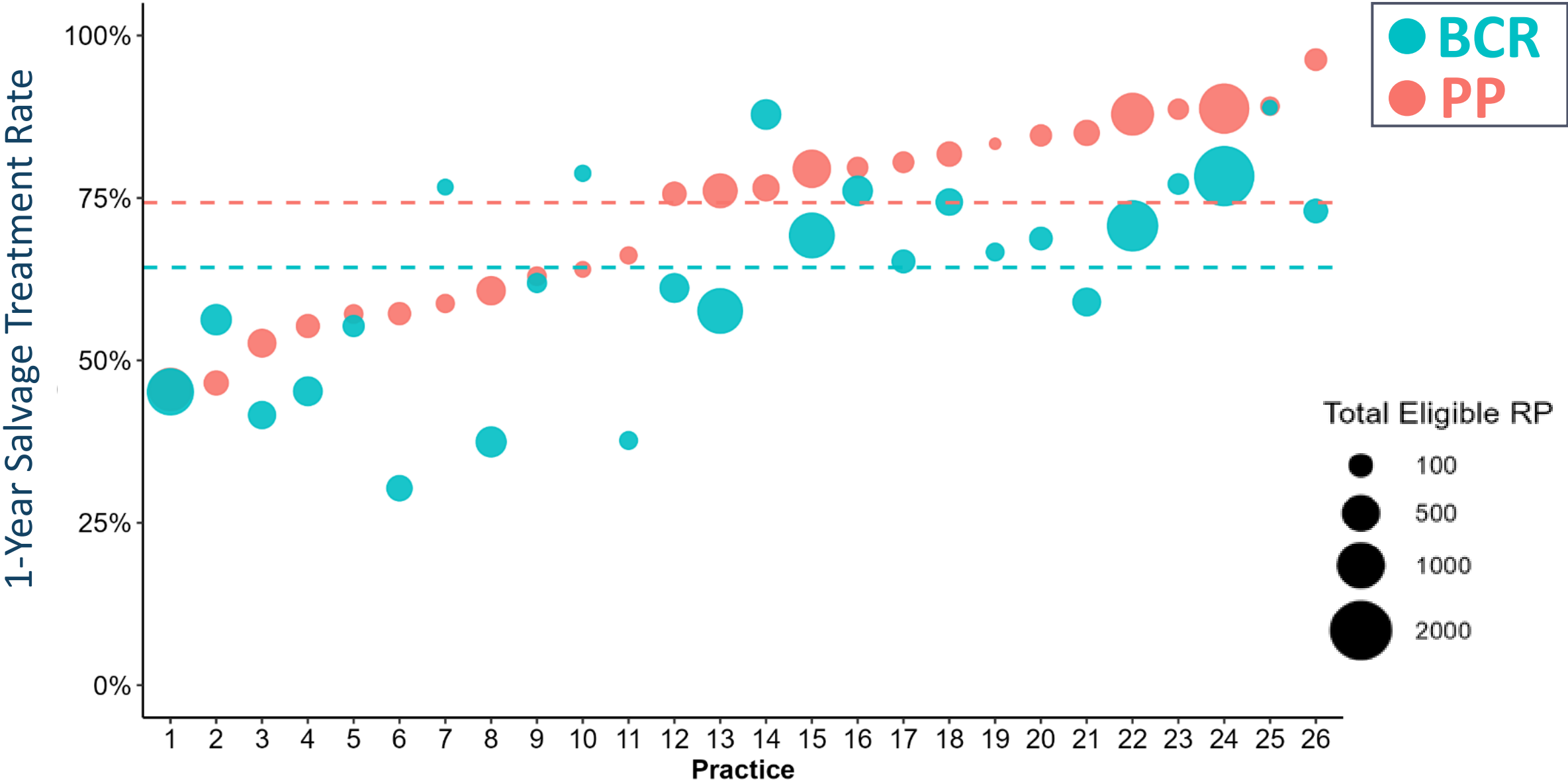
Treatment at 1-Year from PSA Event



Including patients whose PSA became undetectable
without recorded treatment



Rates of Consolidative or Salvage Treatment at 1 Year from PSA Event



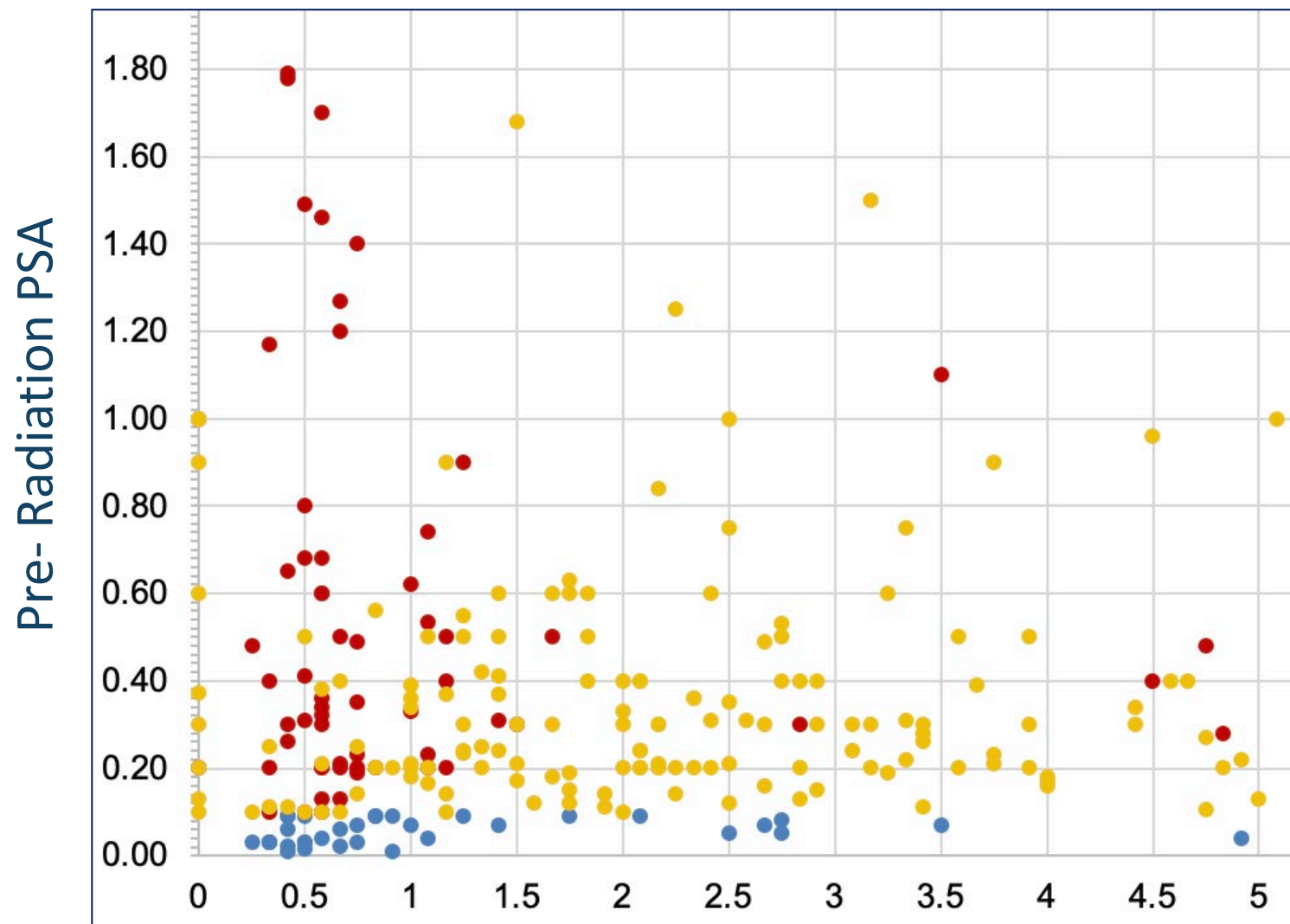
PP and BCR Patients Differ in Post-Operative Risk

Characteristic	PP N = 1,159	BCR N = 1,579
Number of PSA Tests Between PP/BCR and Secondary Treatment	2 (1,3)	2 (1,3)
PSA at PP/BCR Event	0.64 (0.30, 2.20)	0.20 (0.14, 0.27)
Highest PSA Pre-Secondary Trt (Post-RP)	1.00 (0.40, 2.84)	0.23 (0.17, 0.40)
PSA at PP/BCR Event		
< 0.1	0 (0%)	0 (0%)
[0.1, 0.2)	75 (6.5%)	475 (30%)
[0.2, 0.3)	213 (18%)	727 (46%)
[0.3, 0.4)	112 (9.7%)	185 (12%)
[0.4, 0.5)	83 (7.2%)	54 (3.4%)
[0.5, 0.6)	54 (4.7%)	40 (2.5%)
[0.6, 0.7)	56 (4.8%)	26 (1.6%)
[0.7, 0.8)	35 (3.0%)	10 (0.6%)
[0.8, 0.9)	29 (2.5%)	8 (0.5%)
[0.9, 1)	31 (2.7%)	7 (0.4%)
>= 1	471 (41%)	47 (3.0%)

91% BCR patients receiving early salvage (PSA<0.5)

41% PP patients treated at PSA >1

PSA and Time to Treatment for Patients Receiving XRT



One quarter of patients receiving XRT after RP are **persistently positive**

PSA data consistent with MUSIC

● Adjuvant
● Consolidative
● Salvage

Years from Radical Prostatectomy to Initiation of Radiation

Key Takeaways

- **One third** of patients undergoing prostatectomy have **cancer post-op**
 - Disease aggressiveness INCREASING over recent years
 - High quality PSA surveillance imperative
 - MUSIC likely missing 10% of patients with BCR
 - Patients with more advanced disease at substantially higher risk
- Residual cancer **either persistently positive or biochemically recurrent**
 - Different disease characteristics → different approach to management
 - Risk adapted timely subsequent treatment critical
- **Shared management** of patients with Radiation Oncology colleagues
 - Mutual understanding of treatment goals and potential morbidity



Radiation Oncology: Key Player in Managing Biochemical Recurrence

Daniel Krauss, MD

Radiation Oncologist at Corewell Health



Post-Prostatectomy Radiation Therapy: Approaches to Varying Clinical Presentations

Daniel J. Krauss, M.D.

Professor of Radiation Oncology

Oakland University William Beaumont School of Medicine

Disclosures

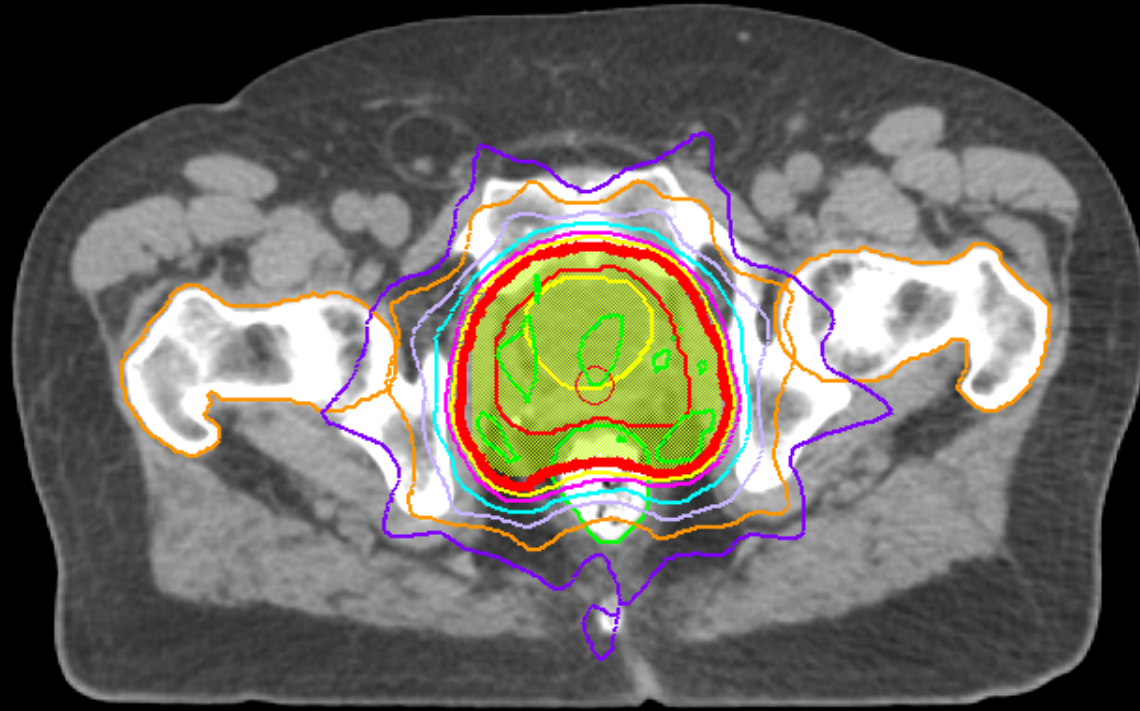
- None

Radiotherapy After Prostatectomy

What do we treat?

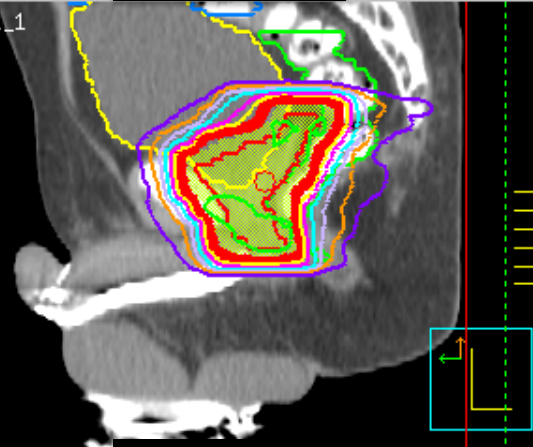
- No tumor
- No target organ
- Standardization of target volume through multiple prospective trials.
 - Inferior: 0.5 – 1.0 cm inferior to VUA
 - Lateral: obturator internus m.
 - Anterior: pubic symphysis
 - Posterior: rectum
 - Superior: seminal vesicle remnant/2-3 cm superior to top of pubic symphysis

Trial: Trial_1
Absolute
7722.0 cGy
7371.0 cGy
7020.0 cGy
6669.0 cGy
6318.0 cGy
5616.0 cGy
4914.0 cGy
4212.0 cGy
3510.0 cGy



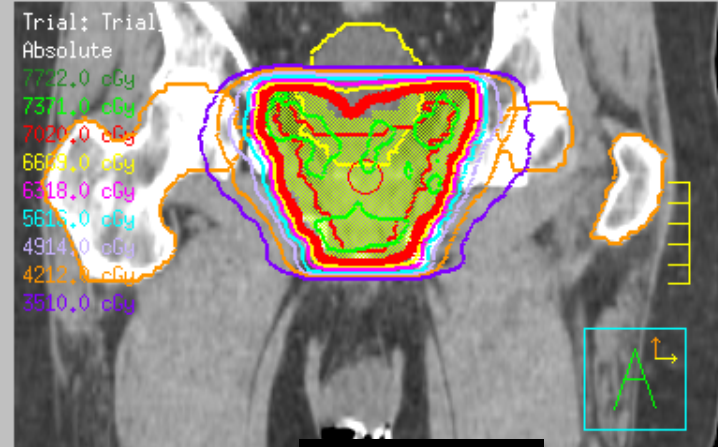
Slice 54: Z = 3.65 cm

Trial: Trial_1
Absolute
7722.0 cGy
7371.0 cGy
7020.0 cGy
6669.0 cGy
6318.0 cGy
5616.0 cGy
4914.0 cGy
4212.0 cGy
3510.0 cGy



Slice 249: X = -0.98 cm

Trial: Trial_1
Absolute
7722.0 cGy
7371.0 cGy
7020.0 cGy
6669.0 cGy
6318.0 cGy
5616.0 cGy
4914.0 cGy
4212.0 cGy
3510.0 cGy



Slice 238: Y = -12.00 cm

Background: How did we get to where we
are now?

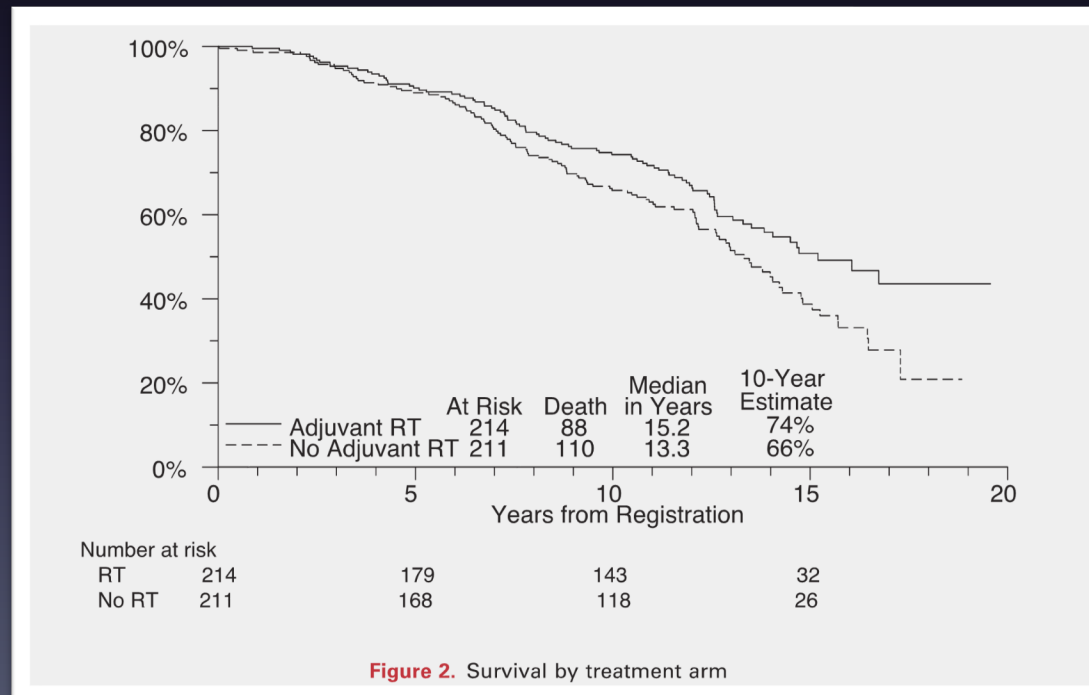
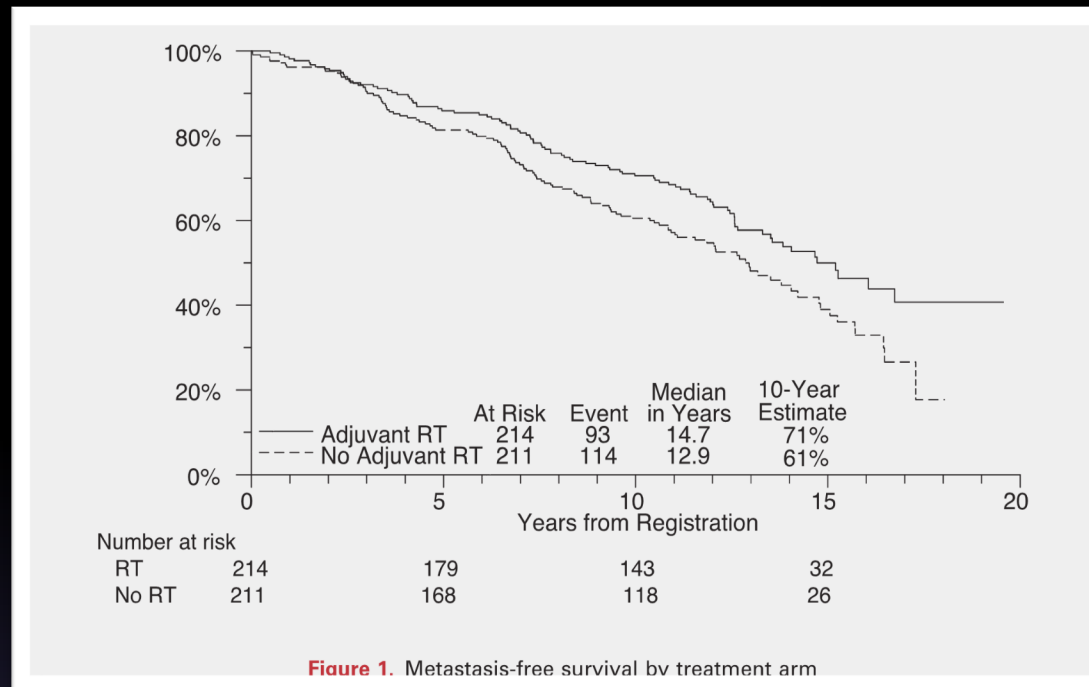
Adjuvant or Salvage Therapy? (Undetectable Post-Op PSA Nadir)

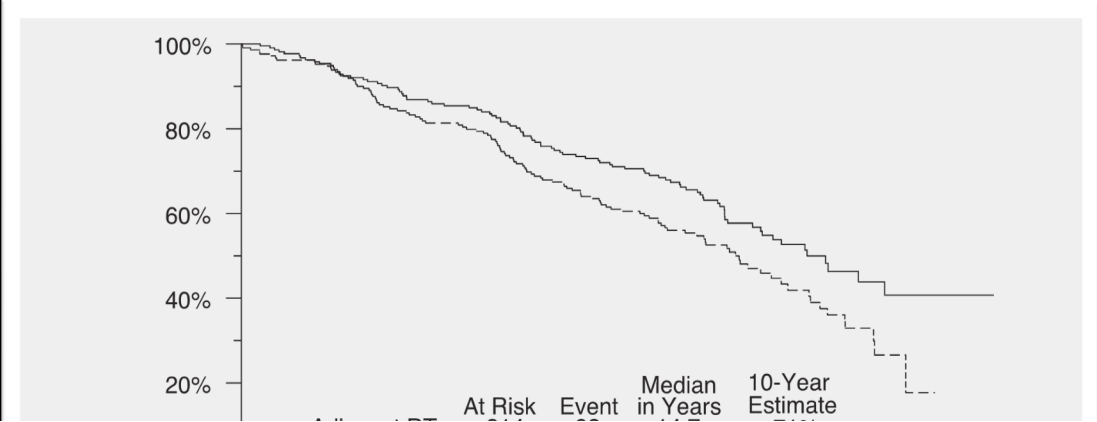
- Prospective randomized trials evaluating adjuvant radiotherapy following prostatectomy with high-risk pathologic features identified:
 - SWOG Thompson et al. *J Urol* 2009;181:956-62.
 - EORTC Bolla et al. *Lancet* 2012;380:2018-27.
 - ARO (German) Wiegel et al. *Eur Urol* 2014;66:243-50.

SWOG 8794

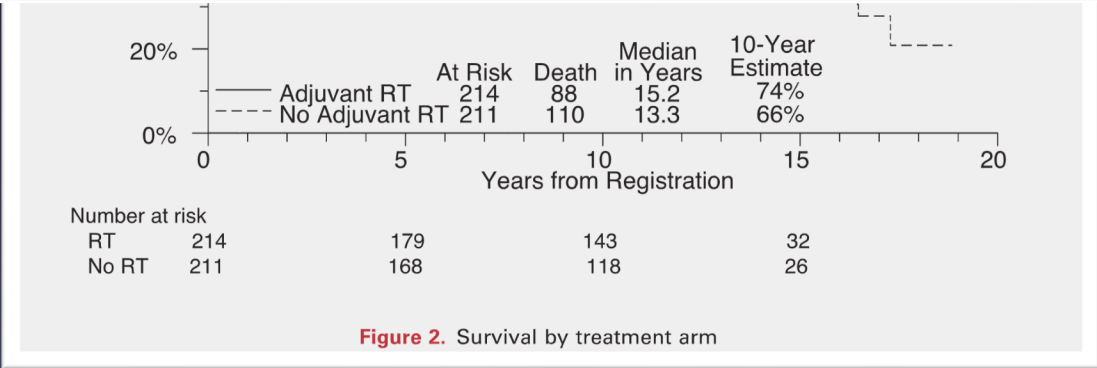
Thompson et al. *J Urol* 2009.

- 1988-1997: 431 patients with ≥ 1 of the following
 - Extracapsular extension
 - Seminal vesicle invasion
 - Positive surgical margin
- Randomization: “Adjuvant” RT (60-64 Gy) vs. Observation
- Negative pelvic nodes (lymphadenectomy for all but low-risk disease patients)
- Undetectable post-op PSA NOT required
 - $\sim 1/3$ of patients had PSA ≥ 0.2 ng/mL (i.e. were “salvage” cases)





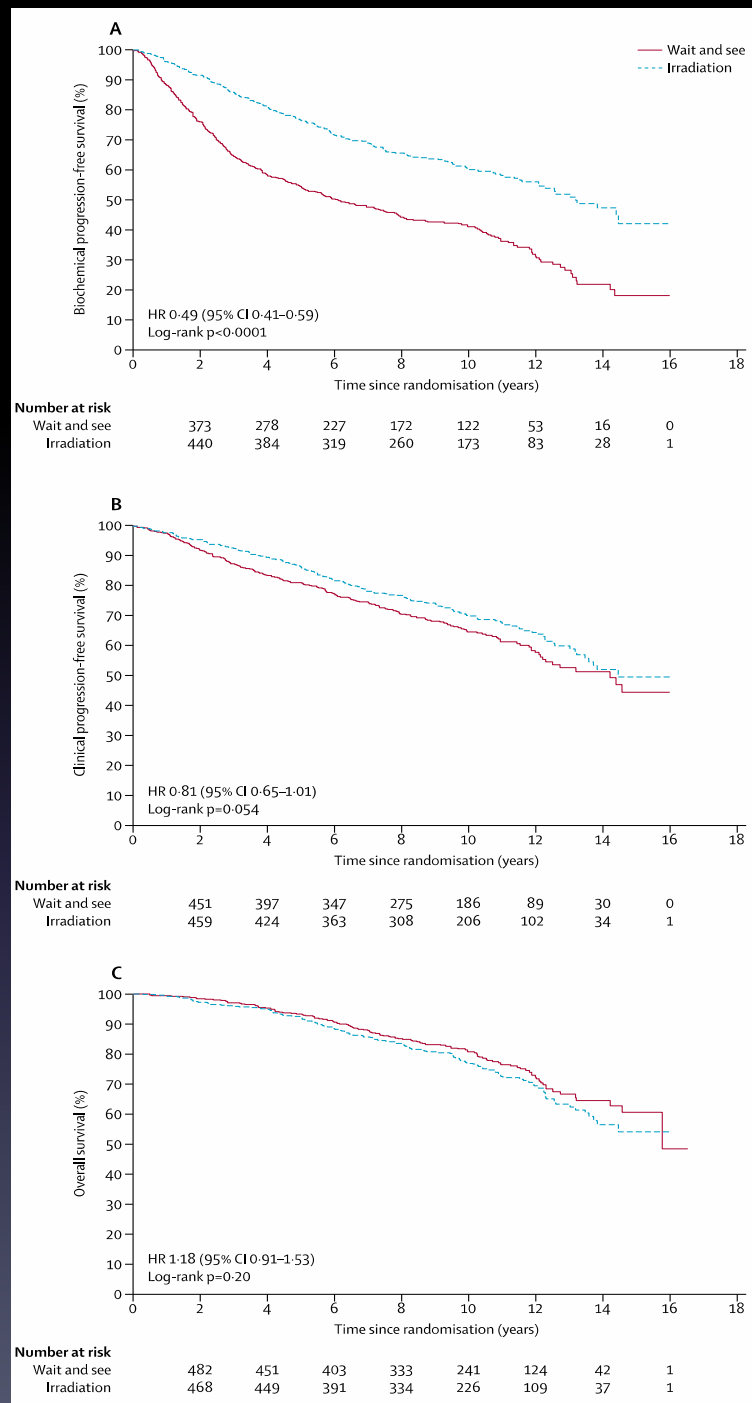
	Observation	Adjuvant RT	P-value
Metastasis-free survival	46%	57%	0.016
Overall survival	48%	59%	0.023



EORTC 22911

Bolla et al. *Lancet* 2012.

- 1992-2001: 1005 patients
 - Node-negative and ≥ 1 of the following:
 - + ECE
 - + SVI
 - + margin
- Randomization: Immediate post-op RT (60 Gy) vs. Observation
 - 113 patients in observation arm eventually received salvage RT for relapse
- 10.7% of patients had detectable (≥ 0.2 ng/mL) PSA
- Median follow-up: 10.6 years



	Wait and see (n=503)	Irradiation (n=502)	Total (n=1005)
Biochemical or clinical progression or death	311 (61.8%)	198 (39.4%)	509 (50.6%)
Treated for prostate cancer, without biochemical progression	10 (2.0%)	7 (1.4%)	17 (1.7%)
Biochemical progression only	238 (47.3%)	105 (20.9%)	343 (34.1%)
Biochemical progression and locoregional failure	20 (4.0%)	11 (2.2%)	31 (3.1%)
Biochemical progression and distant failure	2 (0.4%)	1 (0.2%)	3 (0.3%)
Locoregional failure	2 (0.4%)	3 (0.6%)	5 (0.5%)
Distant failure	3 (0.6%)	5 (1.0%)	8 (0.8%)
Death without biochemical or clinical progression	36 (7.2%)	66 (13.1%)	102 (10.1%)
Clinical progression or death	181 (36.0%)	157 (31.3%)	338 (33.6%)
Locoregional failure	83 (16.5%)	35 (7.0%)	118 (11.7%)
Distant failure	26 (7.2%)	36 (7.2%)	72 (7.2%)
Death without clinical progression	62 (12.3%)	86 (17.1%)	148 (14.7%)
Death	115 (22.9%)	130 (25.9%)	245 (24.4%)
Prostate cancer	34 (6.8%)	25 (5.0%)	59 (5.9%)
Cardiovascular disease	27 (5.4%)	33 (6.6%)	60 (6.0%)
Other cancer	29 (5.8%)	33 (6.6%)	62 (6.2%)
Alzheimer's disease	2 (0.4%)	3 (0.6%)	5 (0.5%)
General deterioration/ageing/sudden death at home	3 (0.6%)	1 (0.2%)	4 (0.4%)
Anaemia	1 (0.2%)	1 (0.2%)	2 (0.2%)
Renal insufficiency	0	2 (0.4%)	2 (0.2%)
COPD/embolism/pulmonary failure	6 (1.2%)	5 (1.0%)	11 (1.1%)
Infection not further specified	3 (0.6%)	10 (2.0%)	13 (1.3%)
Complication of surgery during follow-up	0	1 (0.2%)	1 (0.1%)
Accident/suicide	0	3 (0.6%)	3 (0.3%)
Unspecified, not prostate cancer	3 (0.6%)	3 (0.6%)	6 (0.6%)
Unknown	7 (1.4%)	10 (2.0%)	17 (1.7%)
Second cancer	69 (13.7%)	68 (13.5%)	137 (13.6%)

Data are number (%). Biochemical progression specifically refers to protocol-defined biochemical progression (defined in Methods section). COPD=chronic obstructive pulmonary disease.

Table 2: Events at long-term follow-up

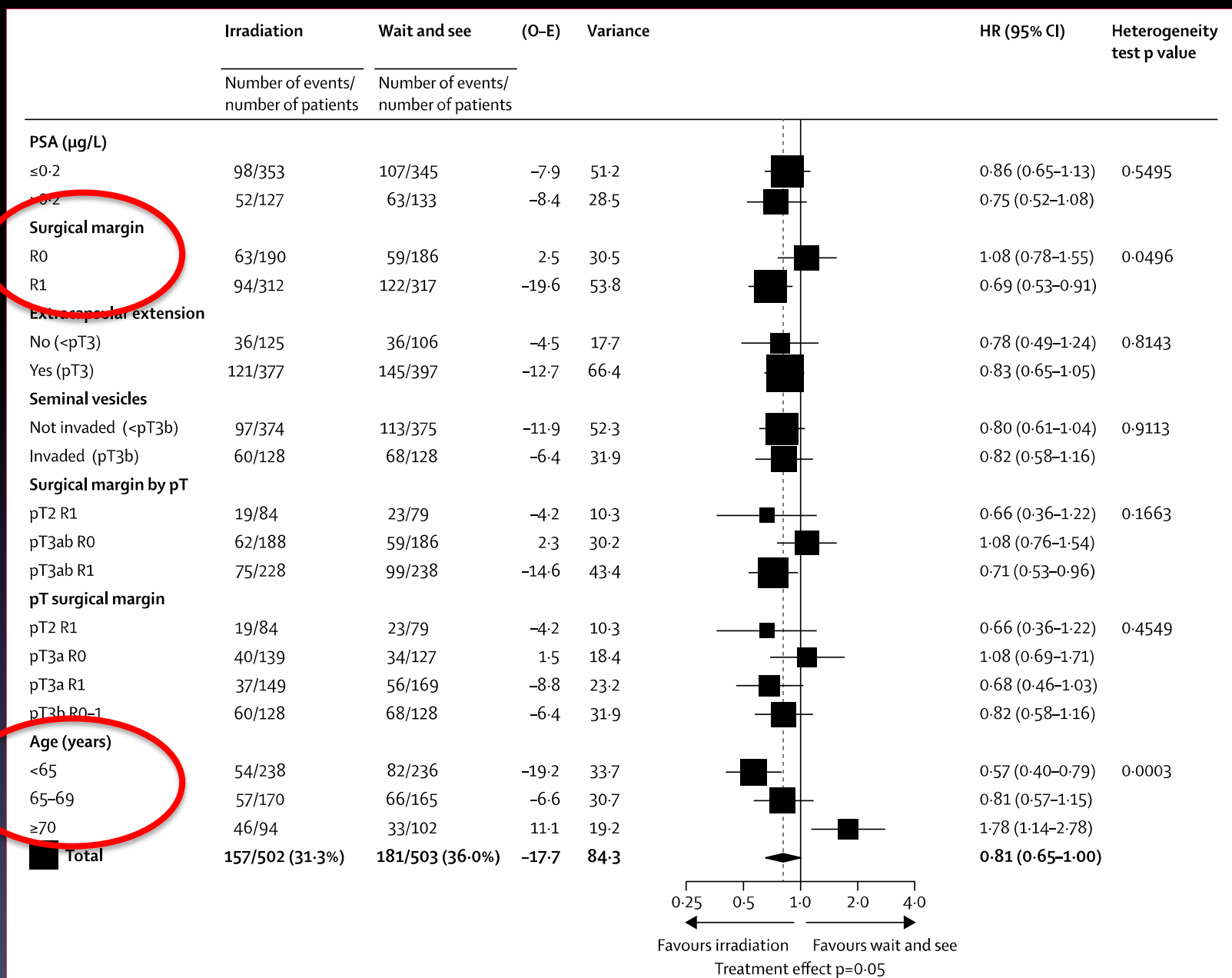
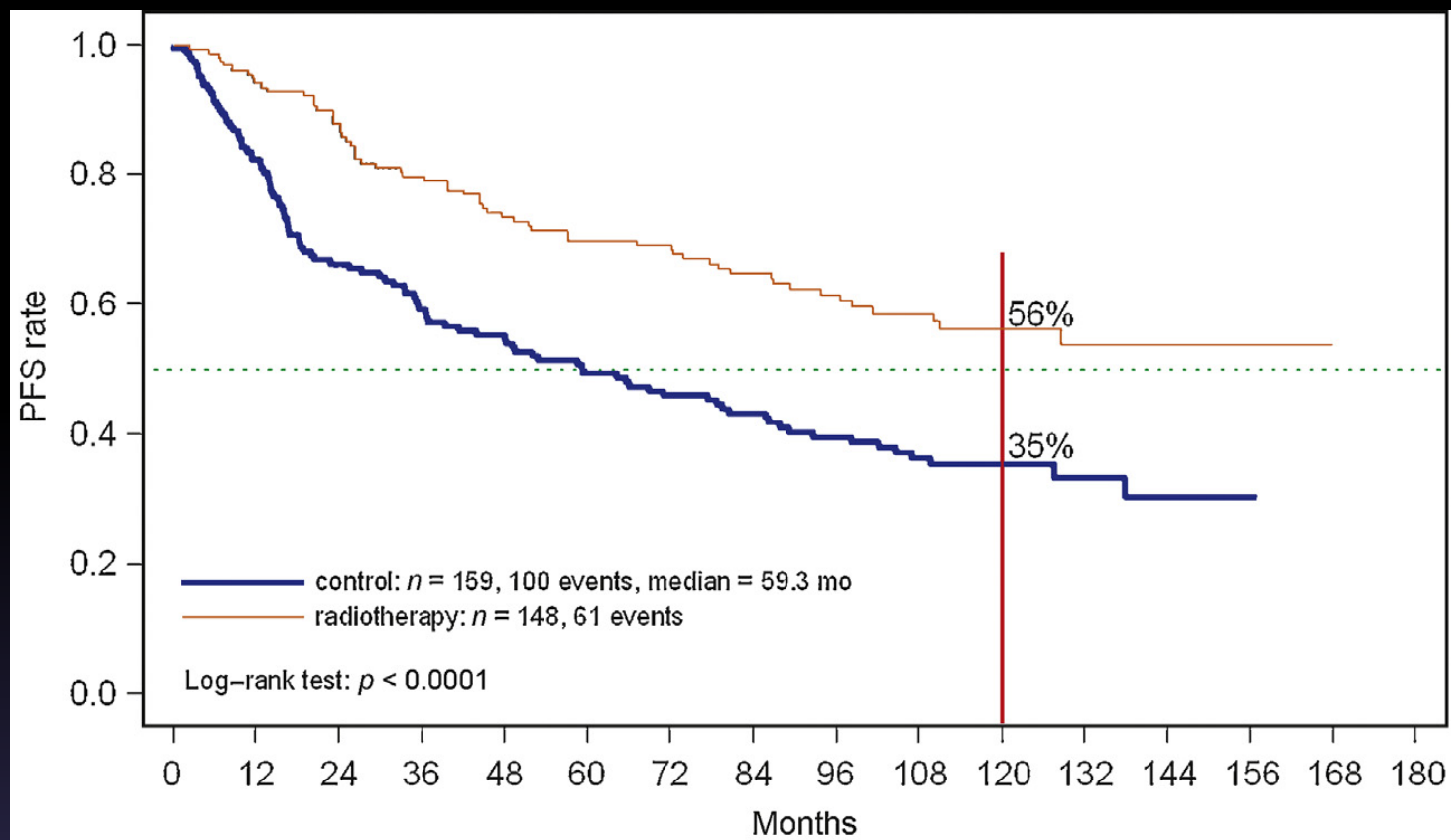


Figure 3: Effects of baseline factors on clinical progression-free survival
 O=observed. E=expected. HR=hazard ratio. PSA=prostate-specific antigen.

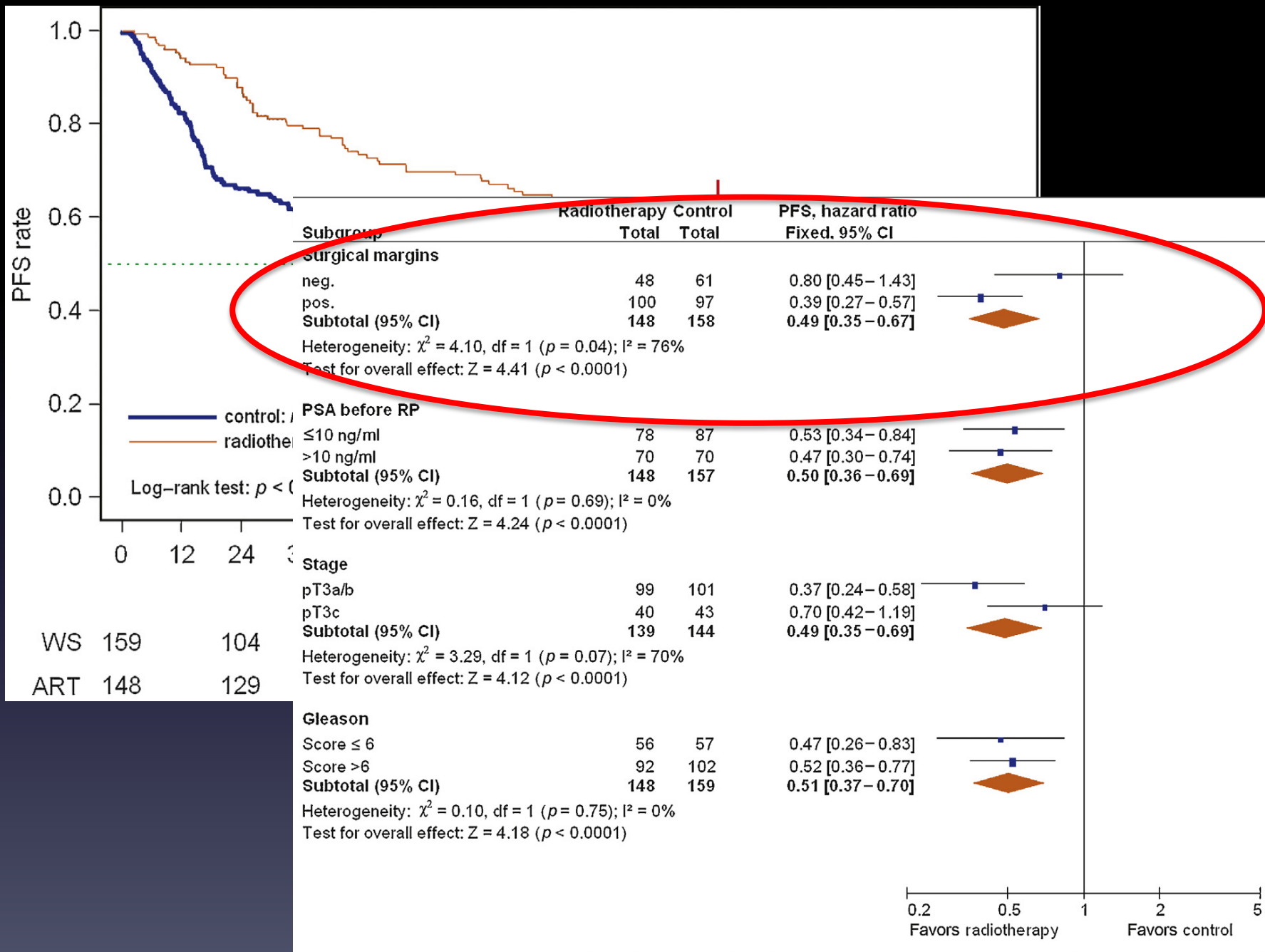
ARO 96-02/AUO AP 09/95

Wiegel et al. *Eur Urol.* 2014.

- 1997-2004: 307 patients with undetectable PSA post-op randomized to:
 - adjuvant RT (60 Gy)
 - “wait-and-see” approach
- 34 patients in RT arm refused treatment
- 5 patients in “wait-and-see” arm got RT



WS	159	104	85	69	52	29	10
ART	148	129	106	97	68	34	8

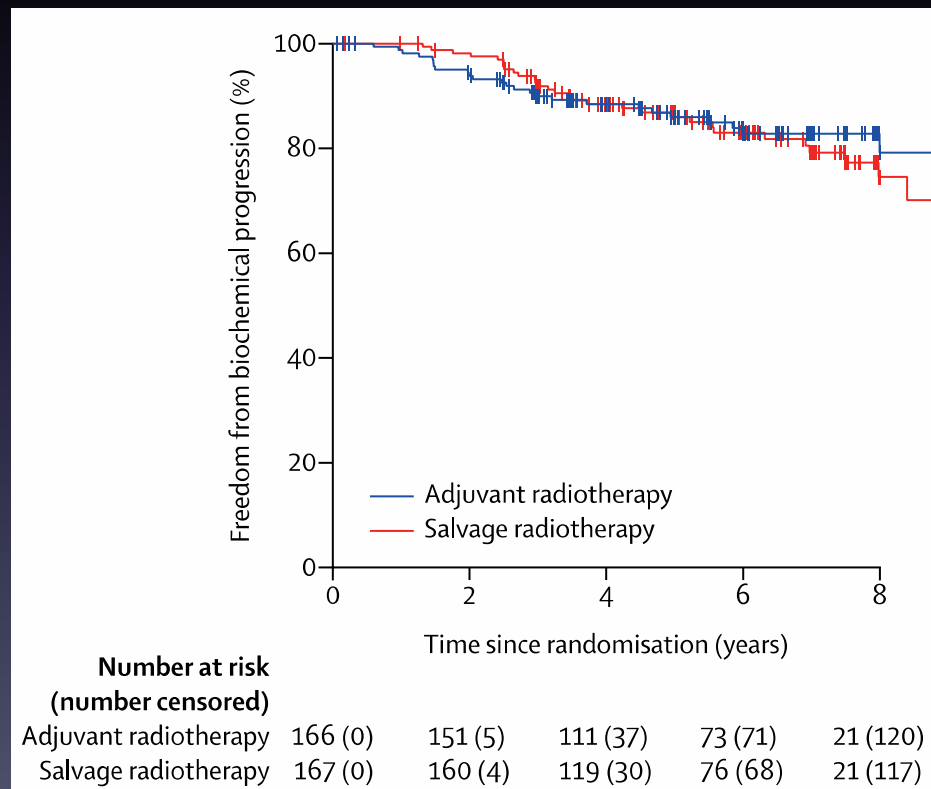


Take-Home Messages

- Adjuvant RT for men with pT3 disease and/or positive margins reduces biochemical relapse rates.
 - Younger patients (< age 70) and those with positive surgical margins most likely to benefit
- Questions remain regarding clinical relapse/survival benefit.
- Left unclear what advantages adjuvant RT holds over early salvage.
 - Can potentially spare significant proportion of patients unnecessary treatment
 - Published while awaiting results of prospective studies evaluating this question
 - RAVES, GETUG-17, RADICALS

TROG 08-03 (RAVES)

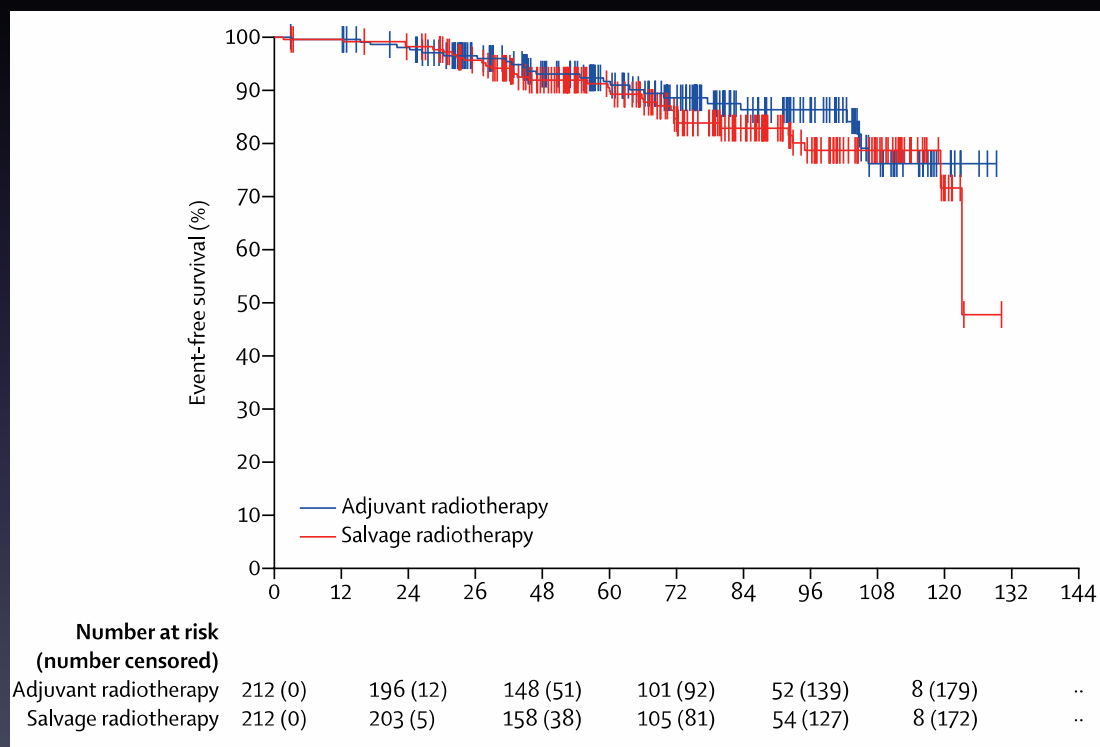
- Randomized 333 patients s/p prostatectomy with undetectable PSA to immediate (adjuvant) RT or “early salvage” – started once PSA was ≥ 0.2 .



- 5-yr FFP 86% vs. 85% with reduced Gr 2 GU toxicity 54% vs. 70% for salvage arm

GETUG-AFU 17

- 424 patients randomized to adjuvant vs. early salvage RT post RP with high risk features



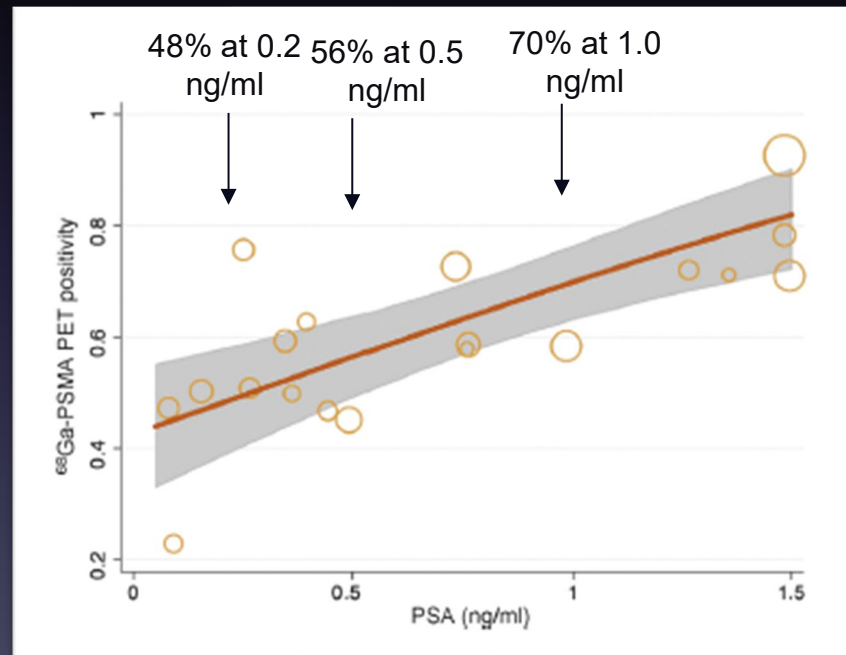
- 5-yr EFS 92% vs. 90%
- 54% of patients on salvage arm eventually required RT

But things change...

Approach to Workup and Treatment Considerations

- **PSMA PET**

- Very sensitive clinical detection for patients with biochemical failure^{1,2}
- Nearly 80% detection of disease in LN's < 8 mm³



¹Perera et al Eur Urology 2016 doi:10.1016/j.eururo.2016.06.021

²Eiber M et al JNM 2015 doi:10.2967/jnumed.116.173492 ³Giesel FL et al, EJMMI 2015

Detection rate after prostatectomy² (n=248 pts)

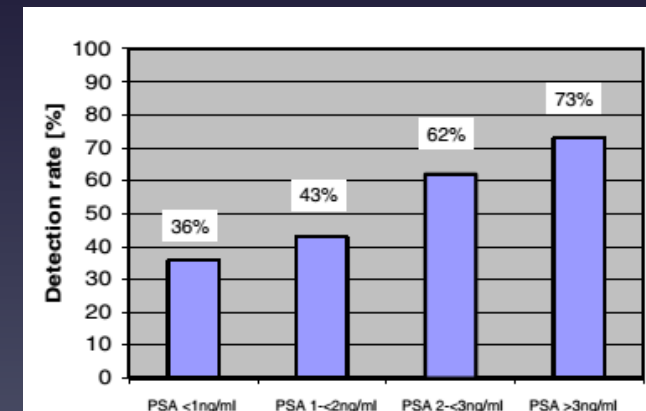
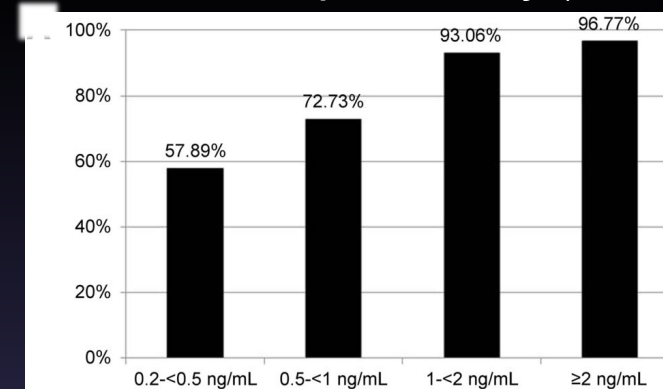
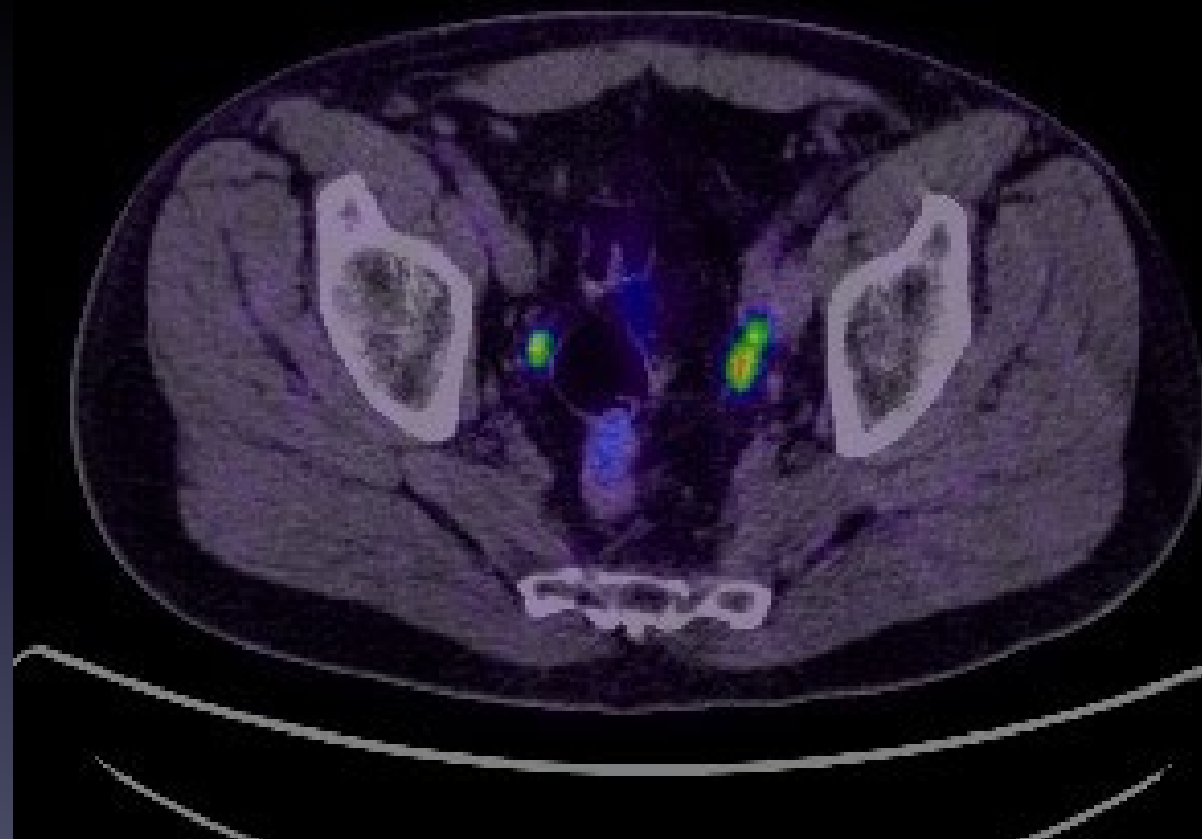


Fig. 1 Detection rate of [¹¹C]Choline-PET/CT plotted against the PSA-value for recurrent prostate cancer

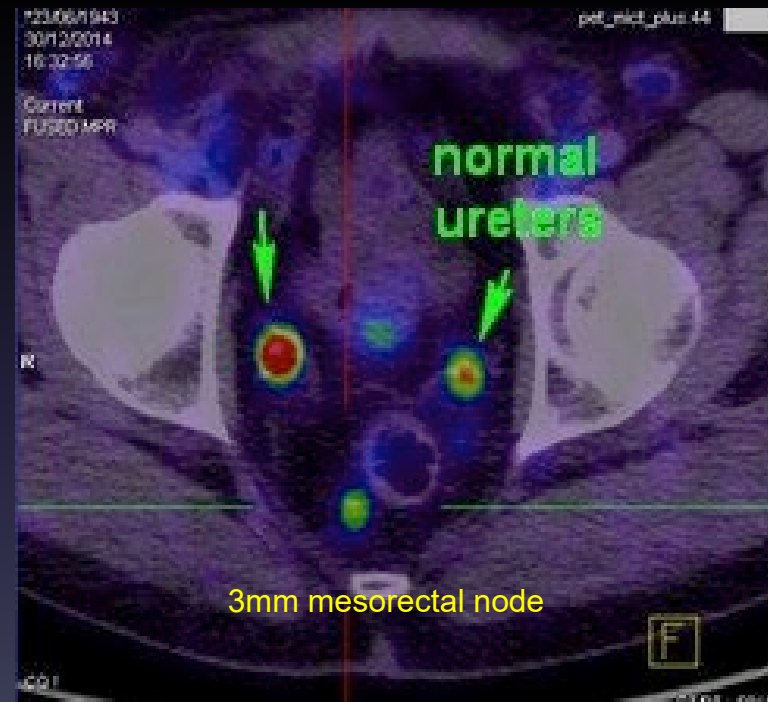
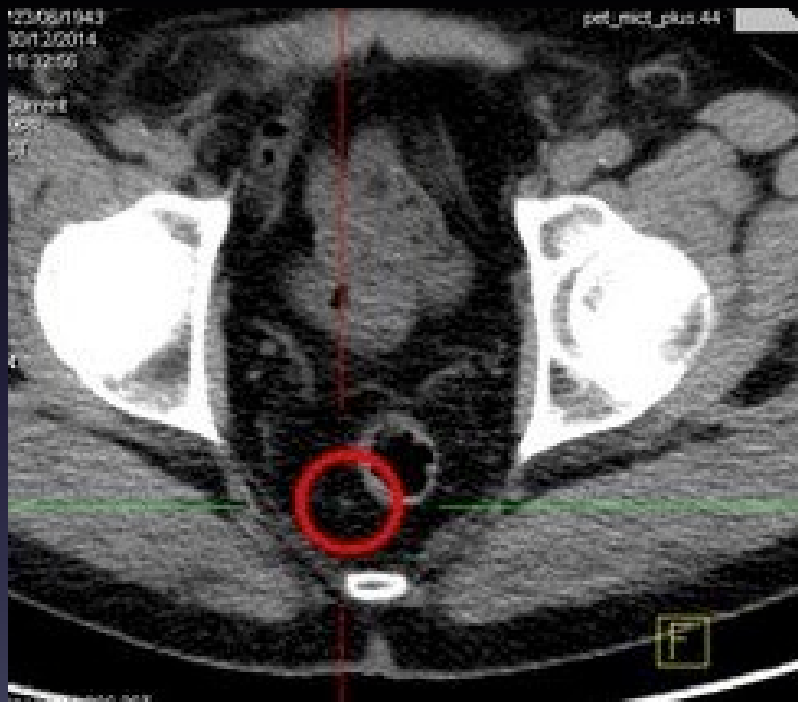
Pelvic Nodal Recurrence Post-Prostatectomy

Undetectable nadir → PSA rise to 0.23



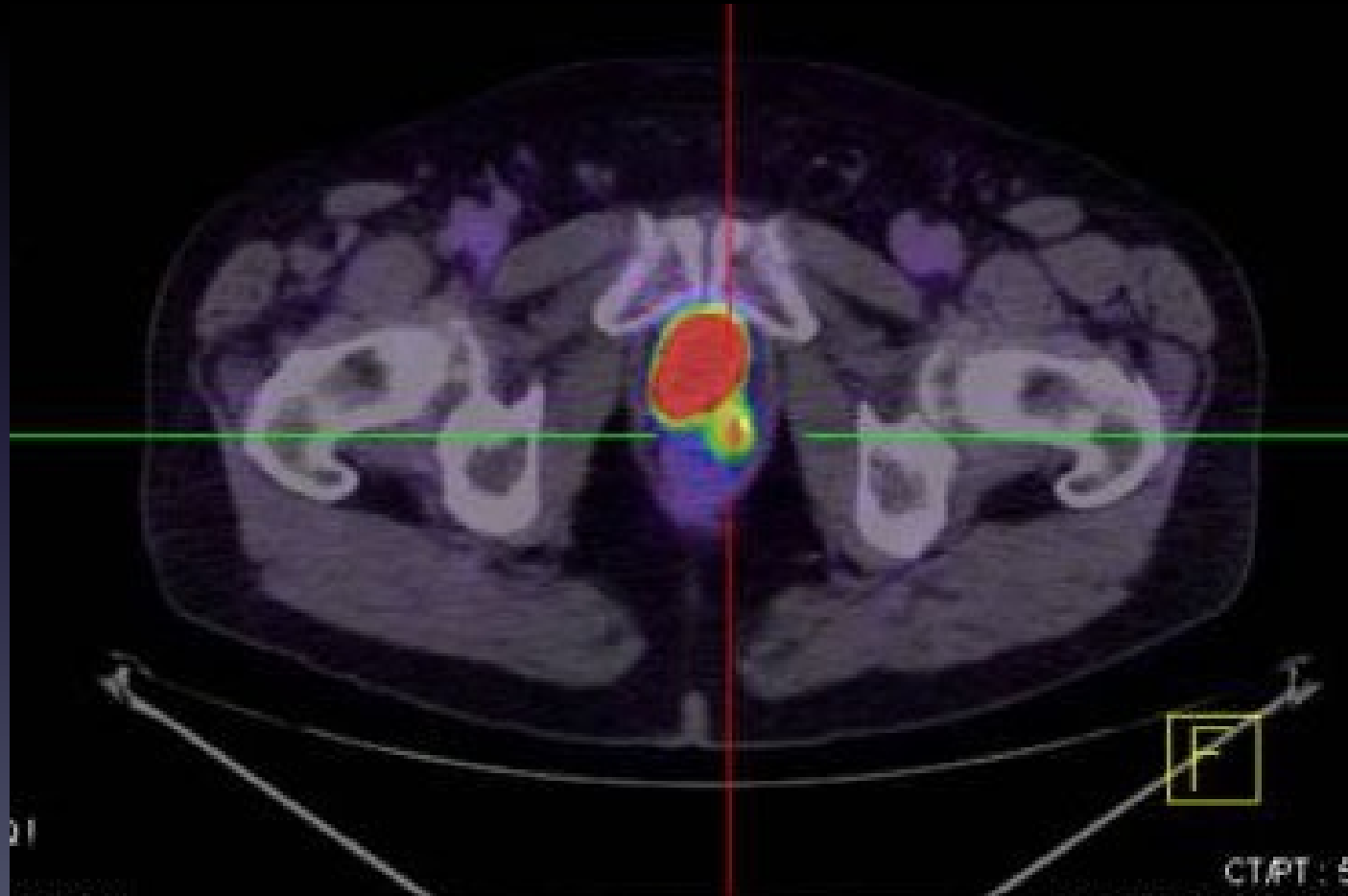
Peri-Rectal Nodal Recurrence

PSA = 0.4 ng/mL

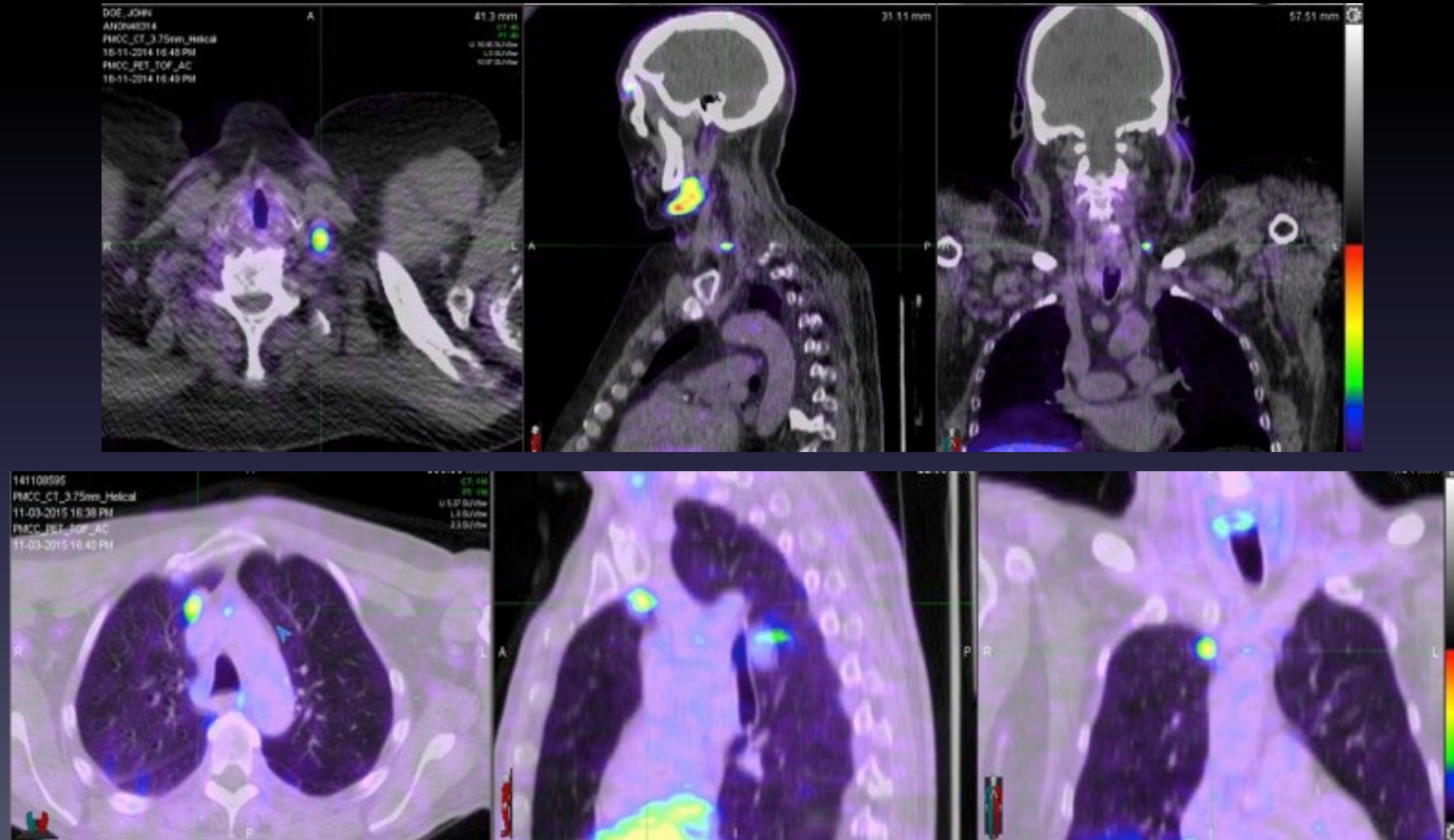


Local Failure

Post-op PSA = 0.31 after undetectable nadir

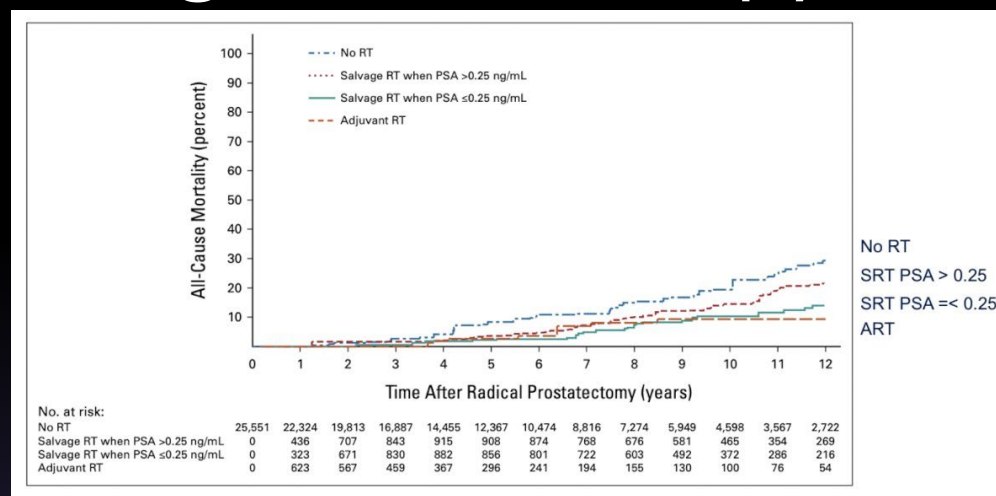


Unusual Recurrence Patterns



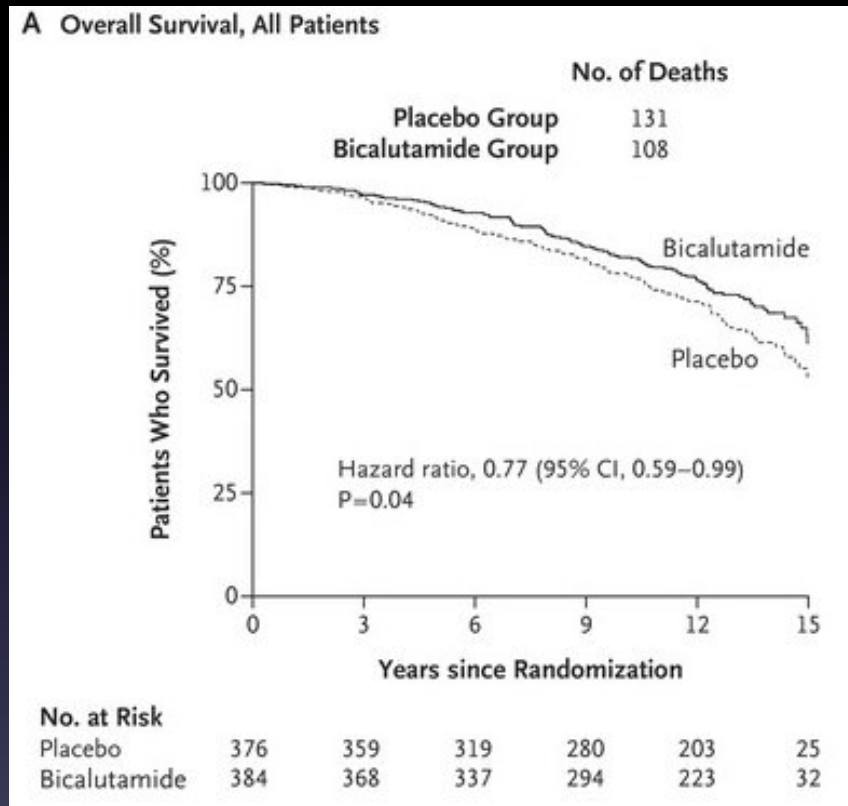
Approach to Salvage Radiotherapy

- **Local Therapy**
 - RT to prostate bed
 - Better early than late
- **Systemic Therapy**
 - Endocrine therapy
 - LHRH agonist/antagonist (short- vs. long-term)
 - Abiraterone
 - Anti-androgen
- **Treat pelvic nodes?**
 - Local disease stage
 - Gleason score
 - Secondary pathologic factors (LVSI, PNI)
 - PLND performed/extent?
 - PSA velocity/doubling time



RTOG 9601 and RTOG 0534

- Most influential trials on post-op RT approaches

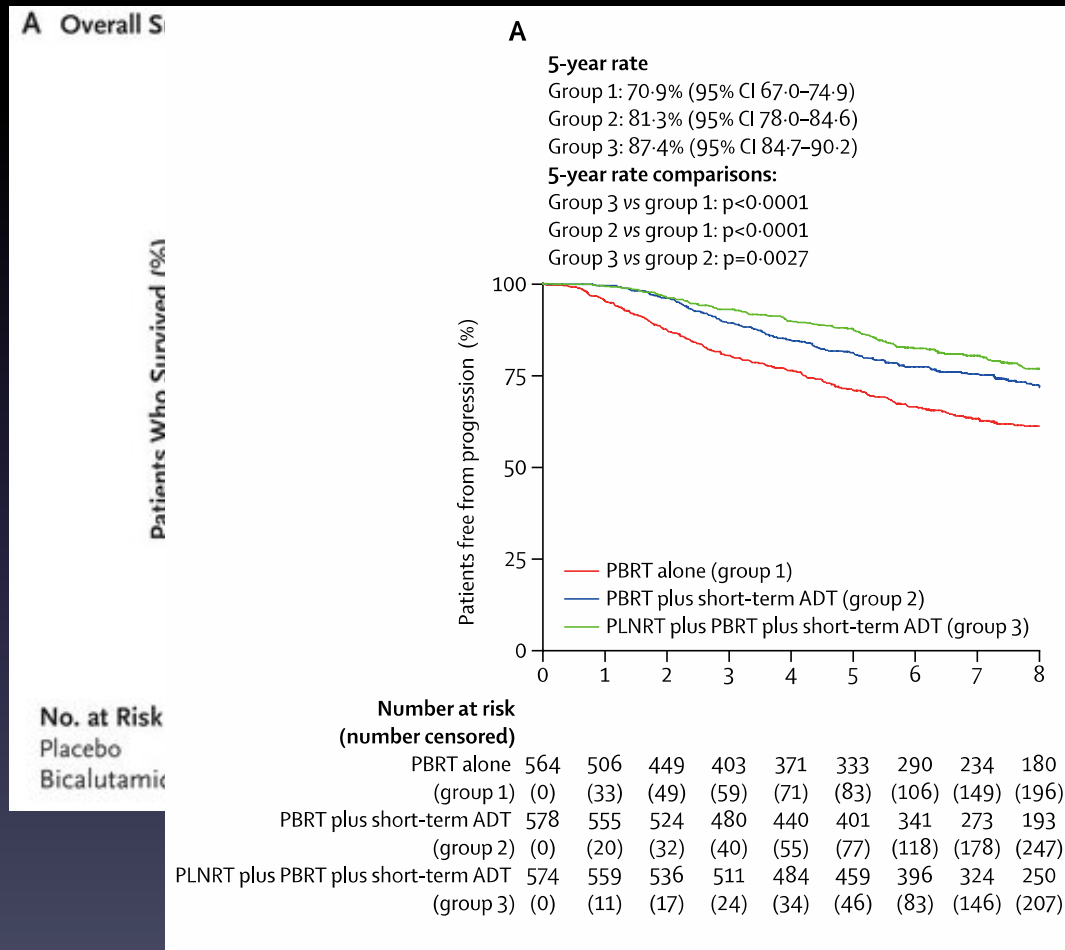


Shipley et al. *N Eng J Med* 376; 2017

Pollack et al. *Lancet* 399; 2022

RTOG 9601 and RTOG 0534

- Most influential trials on post-op RT approaches

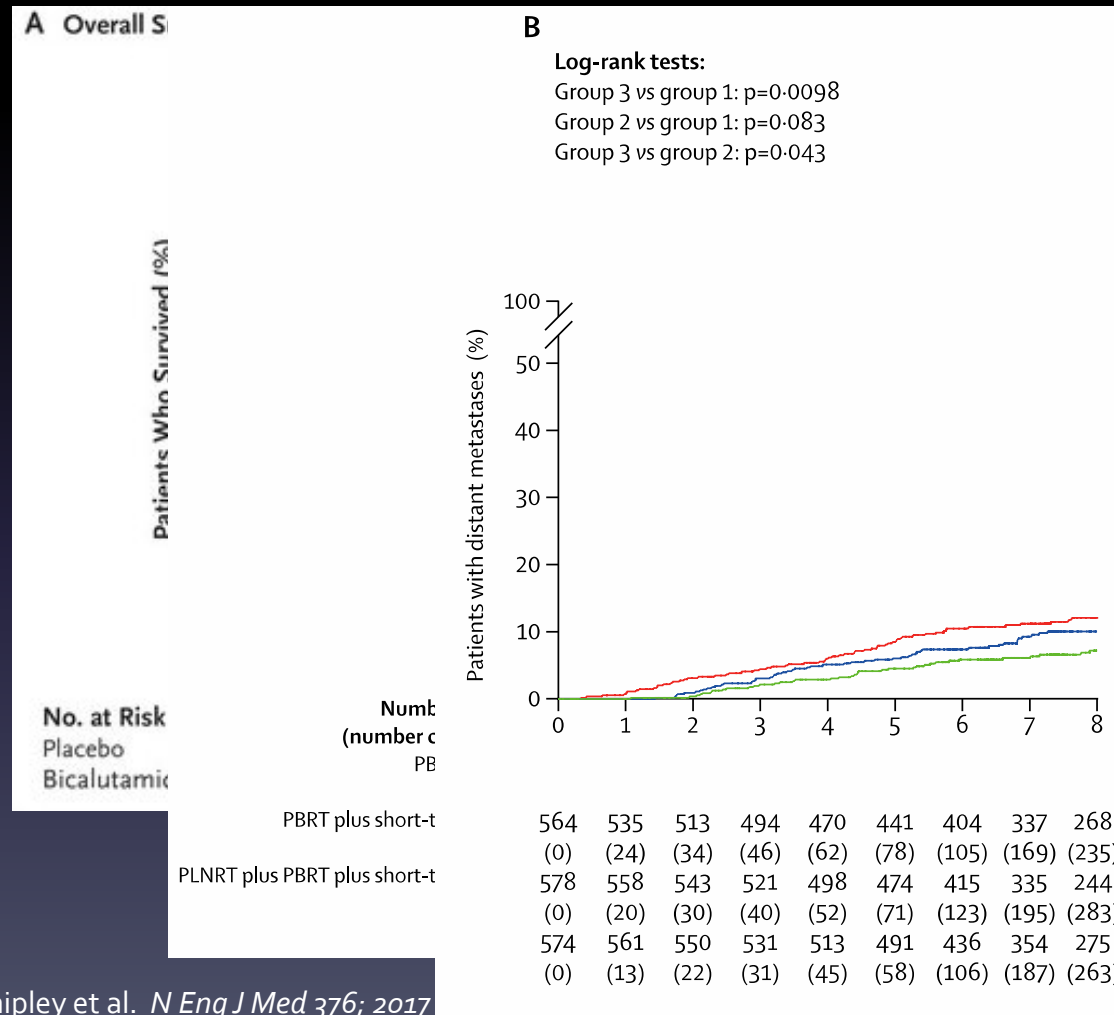


Shipley et al. *N Eng J Med* 376; 2017

Pollack et al. *Lancet* 399; 2022

RTOG 9601 and RTOG 0534

- Most influential trials on post-op RT approaches

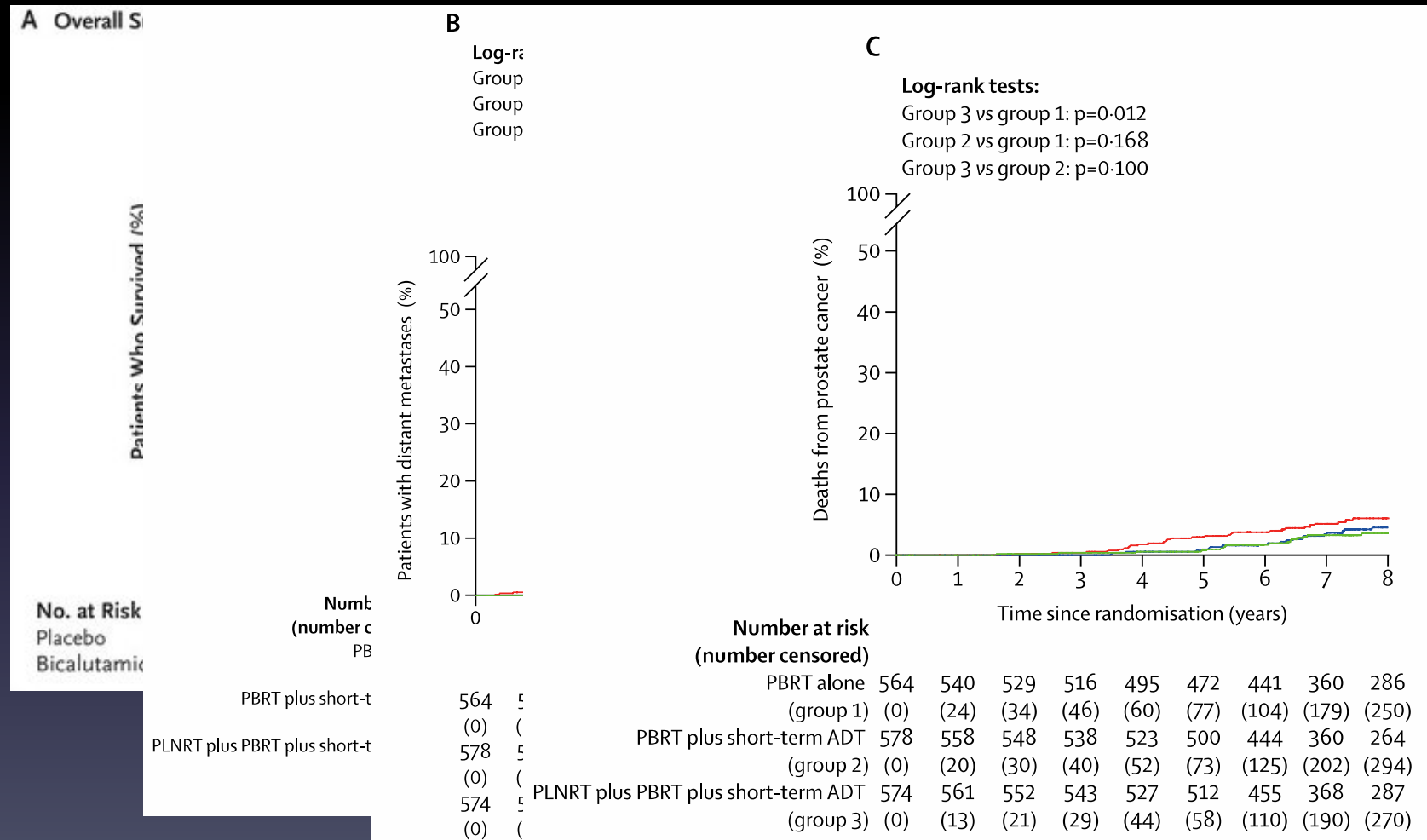


Shipley et al. *N Eng J Med* 376; 2017

Pollack et al. *Lancet* 399; 2022

RTOG 9601 and RTOG 0534

- Most influential trials on post-op RT approaches



Shipley et al. *N Eng J Med* 376; 2017

Pollack et al. *Lancet* 399; 2022

What about patients with persistently elevated ($> 0.1-0.2$ ng/mL) post-prostatectomy?

- May occur in up to 10-15% of prostatectomy cases
- More likely to occur with:
 - Higher pre-op PSA values
 - Older patients
 - Pre-op Gleason (≥ 8)
 - Advanced disease stage ($\geq T3a$)
 - + margins or +LN
- Could be representative of variable clinical scenarios
 - Trace amounts of benign prostate tissue left in bed (*unprovable*)
 - PSA production from locally persistent disease
 - Correlate with path findings (EPE, margin status)
 - Remaining regional or distant metastatic disease
 - Pre-op staging workup?
 - Extent of nodal surgery?

Little prospective data on this group of patients...*what do retrospective data suggest?*

- Preisser et al. *Eur Urol* 76(1); 2019.
 - ~1000 patients; ~50% received salvage RT
 - RT administration associated with improved OS and CSS (~50% relative reduction)
- Stish et al. *J Clin Oncol* 34(32); 2016.
 - > 1100 patients treated between 1987-2013 with salvage RT
 - Nearly 2/3 of patients failed biochemically
 - 10-yr rate of DM ~20%
 - Reduced by RT dose > 68 Gy and administration of ADT
 - Each pre-RT PSA doubling increased DM risk by 32% (TREAT EARLY!)

Table 1 Retrospective studies on patients treated with salvage radiotherapy for a persistent detectable postoperative PSA level

Studies with pN0 patients	Median follow-up (years)	% patients with detectable PSA	Population characteristics	Salvage RT (% patients, RT dose, concurrent HT)	Pre-RT PSA (ng/ml)	Median time from PR to RT	Survival results	Factors predicting for better survival on multivariable analysis
Stish [10]	8.9	1106	pT3a-pT4: 43.1% Positive margins: 48.6% Gleason \geq 8: 16.2%	100% RT Dose < 66 Gy: 30% Dose > 68 Gy: 51.5% 83,7% without HT 6,5% with HT > 1 year	\leq 0.5 ng/ml (45%)	33.6 months	5-year BRFs: 50.1% 10-year BRFs: 45.7% 5-year MFS: 89.1% 10-year MFS: 80.1%	pT, Gleason score, pre-RT PSA Dose > 68 Gy, HT use
Preisser [3]	3.9	1025 (8.8%)	pT3a-b: 63.2% Positive margins: 42.9% Gleason \geq 8: 21.6%	100% RT Dose NR	NR	5.4 months	NR	pT, Gleason score, pre-RT PSA
Ploussard [6]	3.7	201 (100%)	pT3a-b: 54.2% Positive margins: 67.7% Gleason \geq 8: 14.9%	100% RT Dose NR 0% HT	0.48	7 months	BRFS: 42.8%	pT3b, Gleason score, post-RP PSA, pre-RT PSA > 1 ng/ml, surgical margins, PSA velocity
Ploussard [12]	3.1	496 (5.1%) of 9735 patients	pT3a-4: 49.6% Positive margins: 54% Gleason \geq 8: 19.1%	40.4% RT 8.9% RT + HT 19,5% HT	0.1–6.1	NR	1-year BRFs: 34.3% 5-year BRFs: 21.5% 5-year OS: 94.7%	pT3b, Gleason score, post-RP PSA, pre-RT PSA > 1 ng/ml, surgical margins, PSA velocity
Gandaglia [9]	9.2	496 (50%) of 982 patients	pT3a-4: 53.4% Positive margins: 50% Gleason \geq 8: 33.3%	251 (50.6%) RT 50.4 Gy pelvis, 68 Gy fossa 23% HT	NR	NR	10-year CSS: 88%	pT, Gleason score, pre-RT PSA, 10-year metastasis risk > 30%
Fossati [11]	8.0	224 (24%) of 925 patients	pT3a-4: 56% Positive margins: 44% Gleason \geq 8: 24%	100% RT 68 Gy fossa 30% HT	0.2	1.3 months	8-year MFS: 74% if high risk and 62% if very high risk	pT, Gleason score, pre-RT PSA
Barthowiak [13]	6.1	133 (24%) of 555 patients	pT3a-4: 43% Positive margins: 45% Gleason \geq 8: 26%	100% RT Median of 66.6 Gy 0% HT	0.56	10 months	5-year RFS: 49%	pT, pre-RT PSA > 0.5 ng/ml

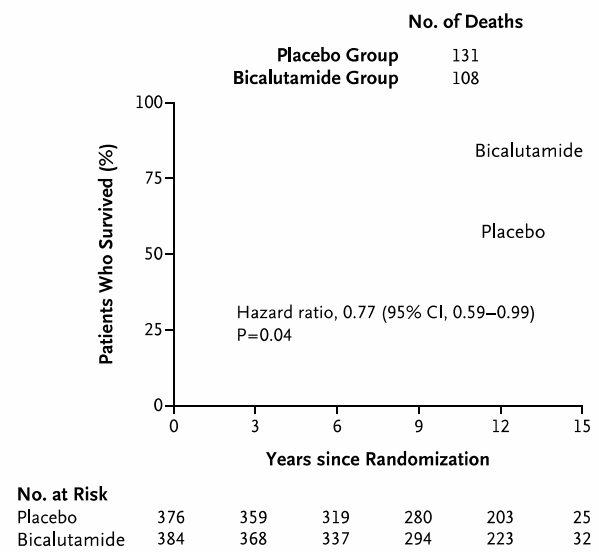
PSA: Prostate-specific antigen); pT: tumor pathological stage; NR: not reported; RP: radical prostatectomy; RT: radiotherapy; HT: hormonotherapy; BRFs: biochemical relapse-free survival; RFS: relapse-free survival; MFS: metastasis-free survival; CSS: cancer-specific survival; OS: overall survival

RTOG 9601

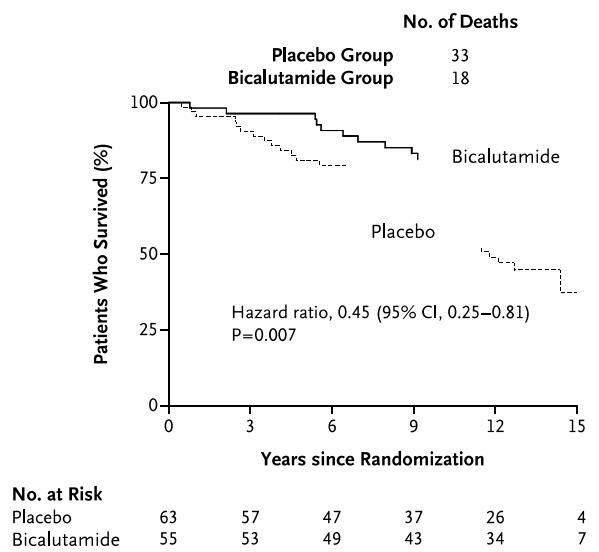
Shipley et al. *NEJM* 2016.

- 1998-2003: 760 patients randomized to post-op RT (64.8 Gy)+/- bicalutamide (150 mg/day) x 2 years
- Eligibility
 - pT3 **OR** pT2 with + margin **AND**
 - Post-op PSA 0.2-4.0 ng/mL.
 - Lymph node negative
- Median f/u: 13 years

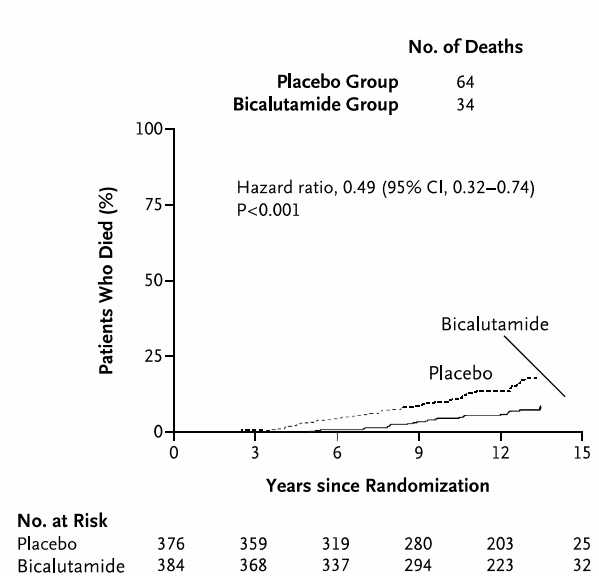
A Overall Survival, All Patients



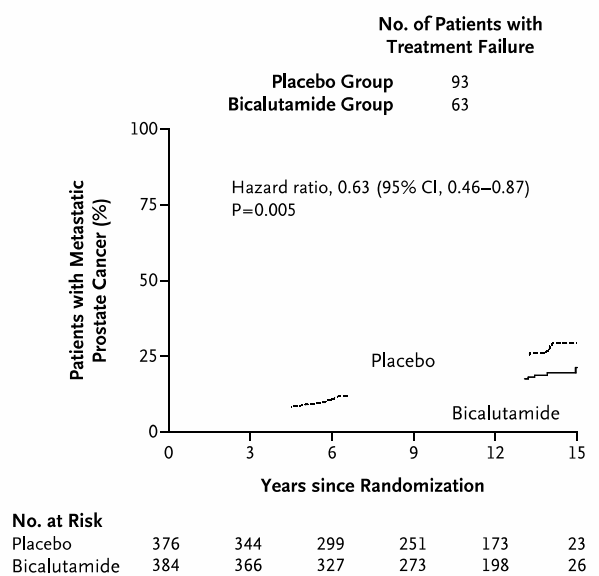
B Overall Survival, Patients with PSA Level >1.5 ng/ml

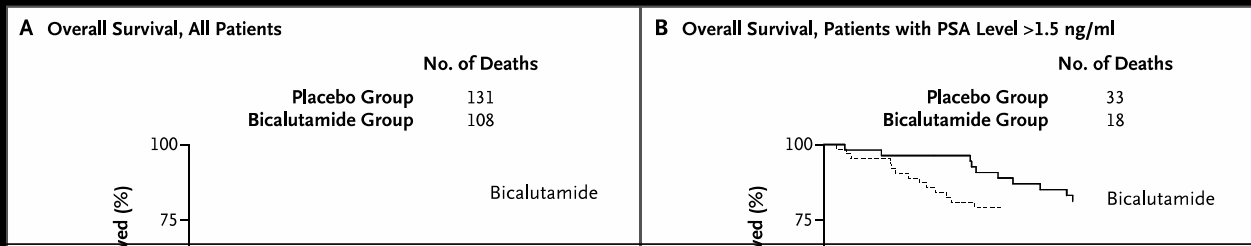


C Death from Prostate Cancer



D Metastatic Prostate Cancer

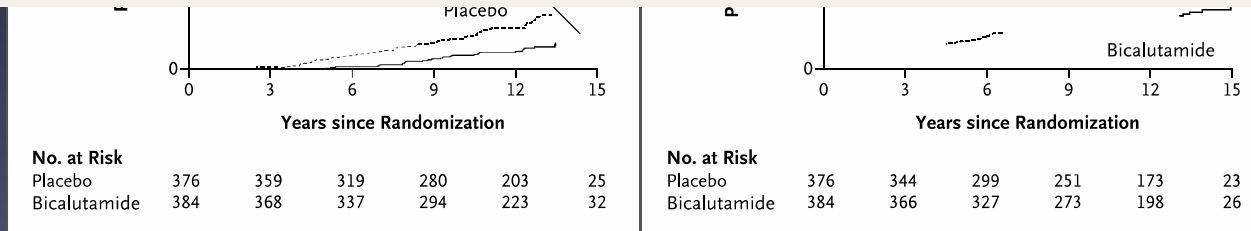




Subgroup	No. of Patients (%)	Bicalutamide Group 12-yr overall survival rate (%)	Placebo Group	Hazard Ratio (95% CI)	P Value
Overall	760 (100.0)	76.3	71.3	0.77 (0.59–0.99)	0.04
Gleason score					
2–6	214 (28.2)	79.5	79.2	0.95 (0.57–1.59)	0.84
7	413 (54.5)	78.5	70.9	0.69 (0.49–0.98)	0.04
8–10	131 (17.3)	63.9	58.4	0.76 (0.44–1.30)	0.32
PSA level at trial entry					
<0.7 ng/ml	405 (53.3)	76.8	80.7	1.13 (0.77–1.65)	0.53
0.7–1.5 ng/ml	237 (31.2)	77.0	67.5	0.61 (0.39–0.95)	0.03
>1.5 ng/ml	118 (15.5)	73.5	48.9	0.45 (0.25–0.81)	0.007
Positive surgical margin					
No	191 (25.1)	73.5	72.9	0.87 (0.53–1.41)	0.56
Yes	569 (74.9)	77.3	70.7	0.73 (0.54–0.98)	0.04

0.4 0.6 0.8 1.0 1.2 1.6

← Bicalutamide Better | Placebo Better →



A Overall Survival, All Patients				B Overall Survival, Patients with PSA Level >1.5 ng/ml			
		No. of Deaths				No. of Deaths	
Placebo Group		131		Placebo Group		33	

Table 2. Antitumor Efficacy with Respect to Key Secondary End Points at 12 Years.

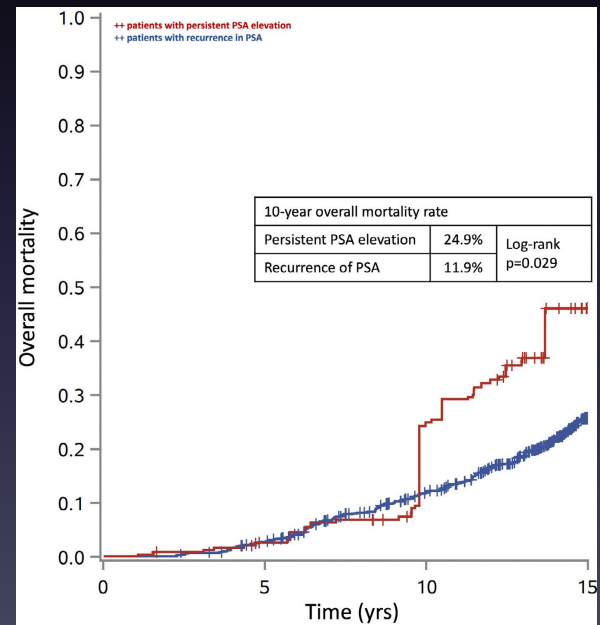
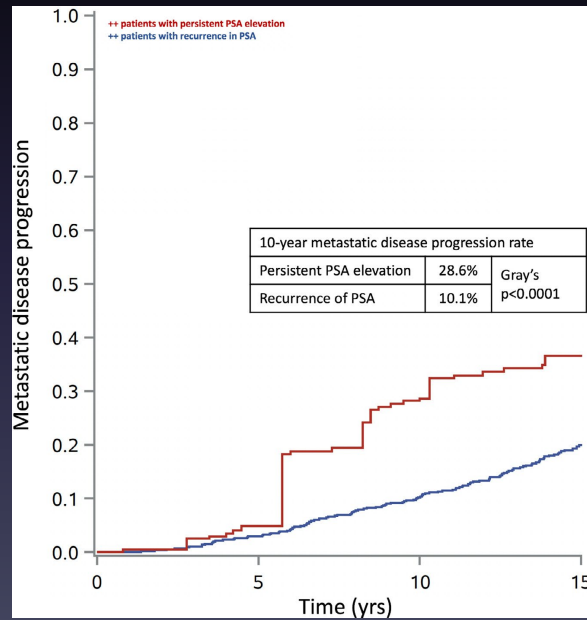
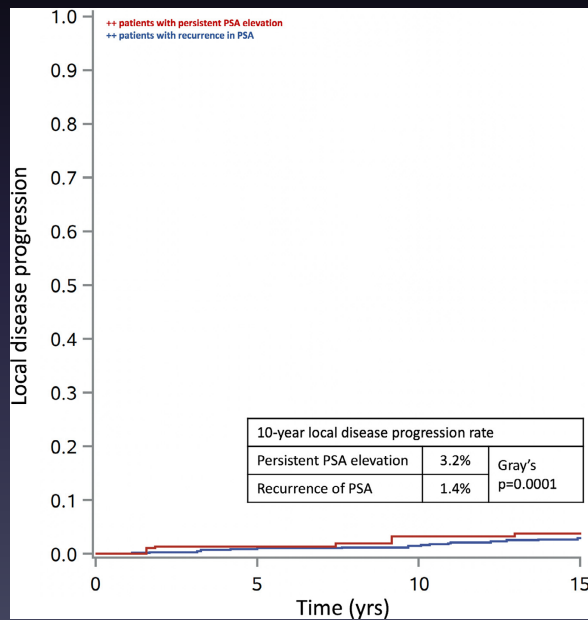
End Point and Subgroup	Bicalutamide Group		Placebo Group		Hazard Ratio (95% CI)	P Value
	Patients at Risk	Rate of End Point	Patients at Risk	Rate of End Point		
	no.	%	no.	%		
Metastatic prostate cancer						
All patients	384	14.5	376	23.0	0.63 (0.46–0.87)	0.005
Gleason score						
2–6	111	7.8	103	16.5	0.64 (0.30–1.36)	0.25
7	205	15.4	208	19.8	0.80 (0.52–1.22)	0.31
8–10	67	21.2	64	44.7	0.35 (0.18–0.67)	0.001
PSA level at trial entry						
<0.7 ng/ml	210	13.4	195	17.1	0.76 (0.47–1.22)	0.26
0.7–1.5 ng/ml	119	17.4	118	28.4	0.67 (0.40–1.12)	0.13
>1.5 ng/ml	55	13.1	63	31.1	0.36 (0.15–0.84)	0.01
Positive surgical margin						
No	96	22.9	95	31.1	0.79 (0.47–1.32)	0.38
Yes	288	11.8	281	20.3	0.56 (0.38–0.84)	0.005
Death from prostate cancer*	384	5.8	376	13.4	0.49 (0.32–0.74)	<0.001
Death from other causes	384	17.9	376	15.3	1.10 (0.79–1.53)	0.58

No. at Risk								No. at Risk							
Placebo	376	359	319	280	203	25		Placebo	376	344	299	251	173	23	
Bicalutamide	384	368	337	294	223	32		Bicalutamide	384	366	327	273	198	26	

RTOG 9601 Update

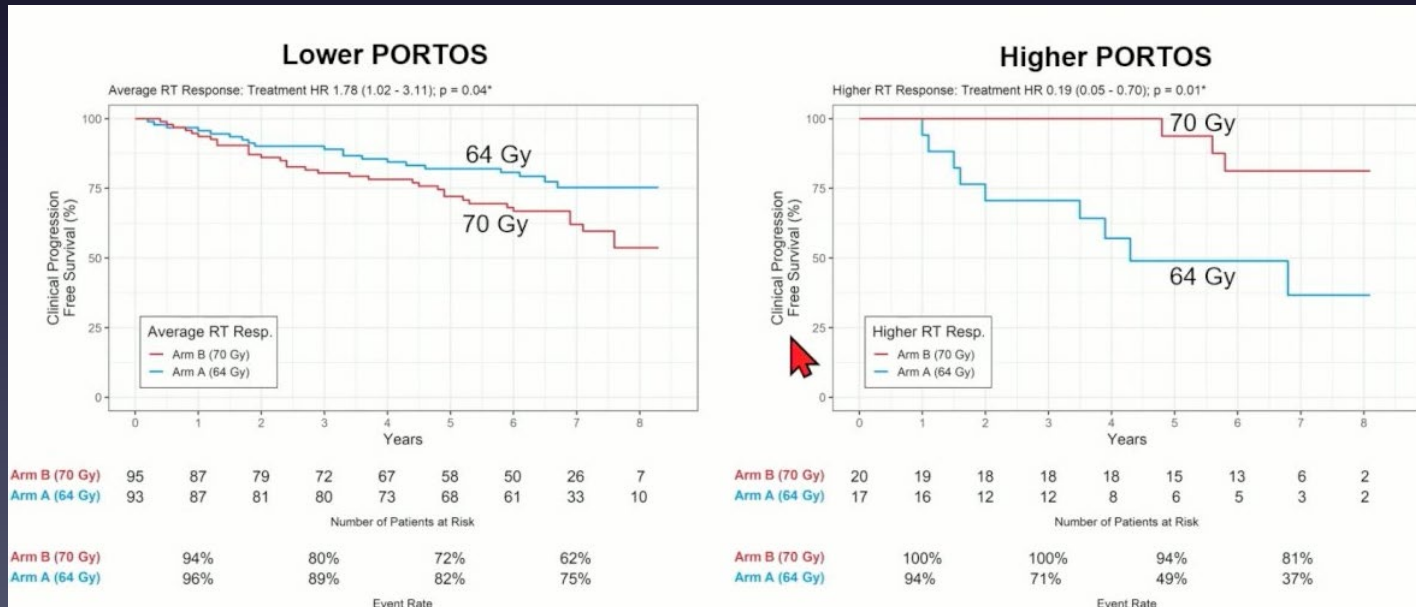
Sood et al. *Urol Oncol* 38; 2020

- Post-hoc analysis of patients with persistently PSA (nadir ≥ 0.4) vs. recurrent PSA
 - 670 recurrent vs. 90 persistent
 - ~50% of patients received bicalutamide in both recurrent and persistent subgroups



A word about genomic classification...

- **Decipher analysis of 352 patients from RTOG 9601**
 - Not statistically significant, but suggestive of greater benefit of endocrine Rx for patients with higher Decipher scores
 - 5% vs. 16% benefit for DM
 - 4.5% vs. 12% for PCSM
 - 2.4% vs. 9% for OS
- **PORTOS score may be predictive for RT dose escalation**
 - Dal Pra data - secondary analysis of SAKK 09/10 trial



Additional Considerations

- **Treatment intensification?**
 - LN-directed therapy
 - Oligometastatic disease
 - MDT/SBRT (COMET, ORIOLE, NRG GU 011)
 - Abi/pred
 - STAMPEDE (LN+)
 - Anti-androgen
 - Enzalutamide, Apalutamide, Darolutamide
 - STEEL, NRG GU 006
 - Chemotherapy
 - Probably not...
 - Immunotherapy
 - Radiopharmaceutical

To Conclude...

Most Common Post-op Patient Presentations/Approaches

- High-risk path (EPE/+ margin) with undetectable PSA
 - Surveillance
 - Can consider adjuvant for very HR (+SV, +LN, Gleason 9-10)
- Rising PSA after initially undetectable
 - Restaging PSMA PET negative
 - Salvage RT to prostate bed +/- pelvic nodes +/- ADT
 - PET + prostate bed
 - Salvage RT to prostate bed (consider focal boost to nodule) +/- LN +/- ADT
 - PET +LN
 - Salvage RT to prostate bed + LN + ADT + Abi/pred (STAMPEDE)
 - Escalate RT dose to PET + disease
 - PET + solitary or oligo-metastatic distant disease
 - SBRT to metastatic disease
 - RT to prostate bed/nodes???
 - Systemic therapy?

Most Common Post-op Patient Approaches (cont'd)

- Persistent PSA elevation post-op
 - Restage with PSMA PET if not done pre-op
 - Early treatment initiation with combination local + systemic therapy
 - Consideration and future study of intensification of systemic therapy due to high risk of metastatic progression

Thank You

Table Discussions

Help us understand relationships with Radiation Oncology across the state

Questions to Consider

1. What are the most **common barriers** you encounter when considering radiation therapy for a patient following prostatectomy?
2. What do you **wish you knew more about to improve your counseling** or decision making for patients with a detectable PSA after prostatectomy?
3. What **effective strategies** have you used when co-managing patients with a radiation oncologist?
4. What can MUSIC do to improve the care of patients requiring post-prostatectomy radiation?

Key Takeaways

Tudor Borza, MD



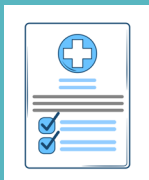
Clinical Stage and Recurrence / Metastases: Need for Improved Documentation

Brian Lane, MD, PhD

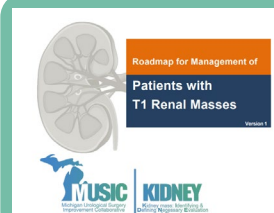


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of the Blue Cross and Blue Shield Association

Why is Clinical Staging Important?



Without accurate N and M staging, we cannot draw conclusions on oncologic outcomes



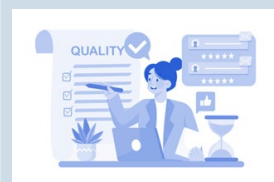
MUSIC's contributions are significant, especially within AS

>8000 patients from clinically diverse settings
>2500 T1RM on AS



Who progresses after AS or treatment?
And when?

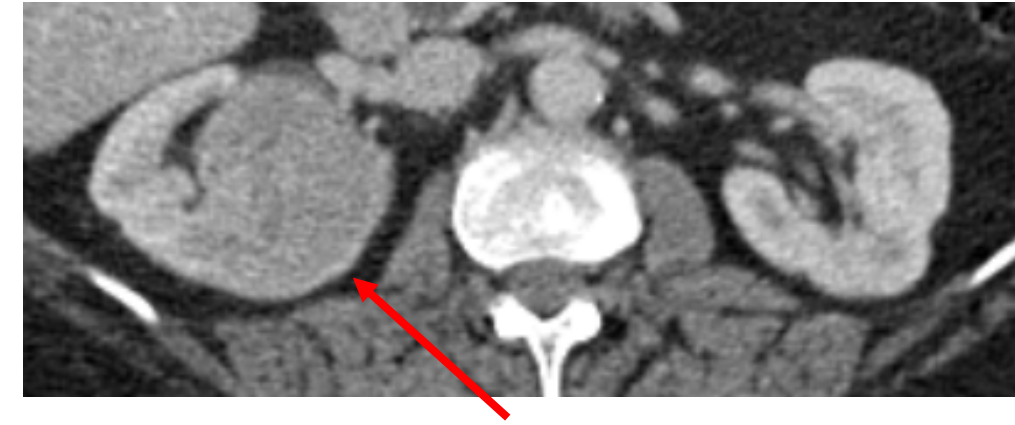
What is the outcome of tiny lung nodules?
Are mets from RCC or other cancer?



Many questions to be answered to improve the quality of care delivered to our patients!

Case Study

- 57 yo with 5.5 cm right renal mass and 12 mm lung nodule (ddx: primary lung Ca vs. met)
- So cT1bN0M1 (if RCC met) vs.
cT1bN0M0 (if not met)
- What would you say?



Case Study

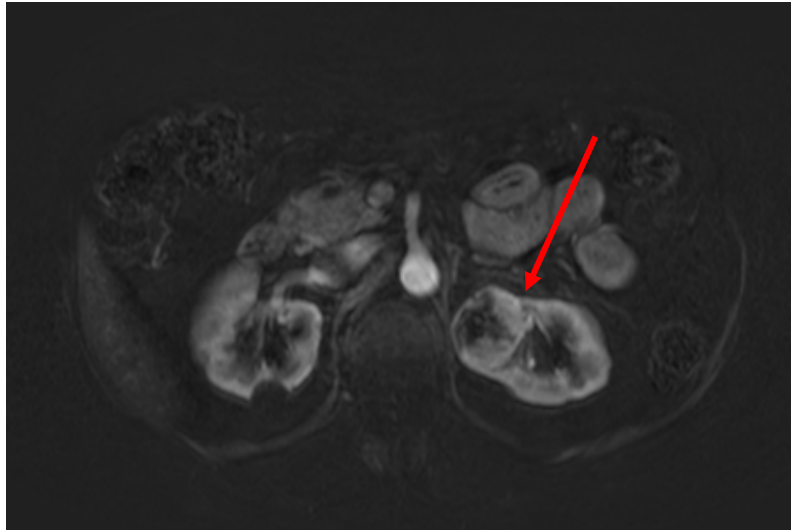
- 57 yo with 5.5 cm right renal mass and 12 mm lung nodule (ddx: primary lung Ca vs. met)
- So cT1bN0M1 (if RCC met) vs.
cT1bN0M0 (if not met)
- Code as cM1
- Biopsy of lung nodule arranged to make best plan
- Path: squamous cell carcinoma (not from kidney)
- Plan: surgical resection of both likely localized cancers: lung cancer and cT1bN0M0 kidney cancer
- Path from MIRNx: ccRCC, 5cm, pT1bN0M0, grade 3



Case Study

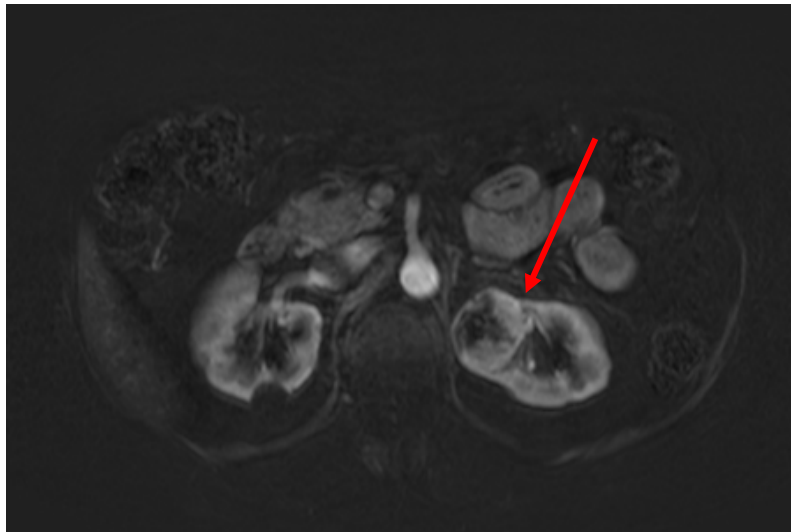
- 76yo woman with 4.5cm left renal mass on imaging done for CKD
- Biopsy done – ccRCC grade 3 GFR: 37
- Pre-op chest imaging – multiple non-calcified scattered nodules bilaterally, largest 6mm; no comparison study available
- Partial nephrectomy – ccRCC grade 3, pT1b with negative margins
- 3-month interval CT chest showed enlarging nodules, now up to 15.1cm;

What is the M stage?



Case Study

- 76yo woman with 4.5cm left renal mass on imaging done for CKD
- Biopsy done – ccRCC grade 3 GFR: 37
- Pre-op chest imaging – multiple non-calcified scattered nodules bilaterally, largest 6mm; no comparison study available
- Partial nephrectomy – ccRCC grade 3, pT1b with negative margins
- 3-month interval CT chest showed enlarging nodules, now up to 15.1cm; biopsy arranged: path:

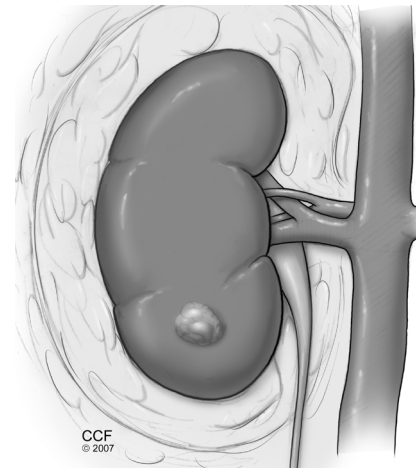


Primer on Documentation of cTNM Stage for Clinicians

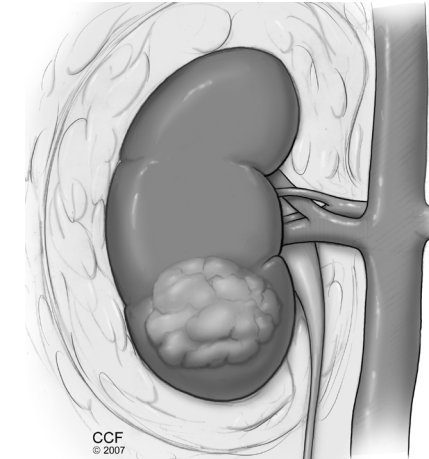
T stage hasn't changed:

- cT1a: localized, ≤ 4 cm
- cT1b: localized, 4.1 – 7 cm
- cT2a: localized, 7.1 – 10 cm
- cT2b: localized, >10 cm
- cT3a: radiographic suspicion of fat or venous invasion
- cT3b/c: rad. suspicion of IVC invasion
- cT4: rad. suspicion of direct invasion into another organ (adrenal, liver, etc.)

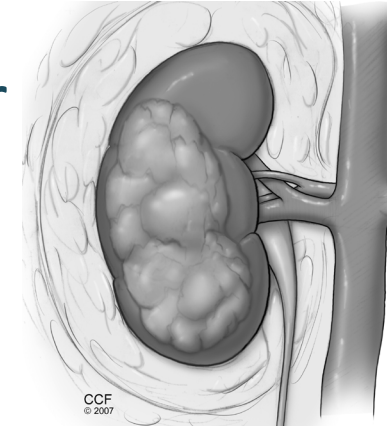
cT1a: AS or TA or RPN



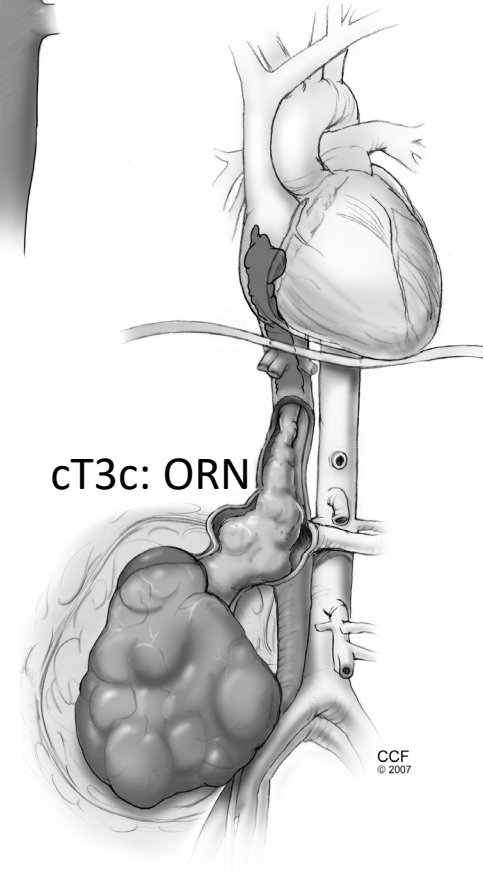
cT1b: RPN or OPN or MIRN or AS



cT2 to cT3a: MIRN



cT3c: ORN



Clinical vs. Pathologic N and M Staging

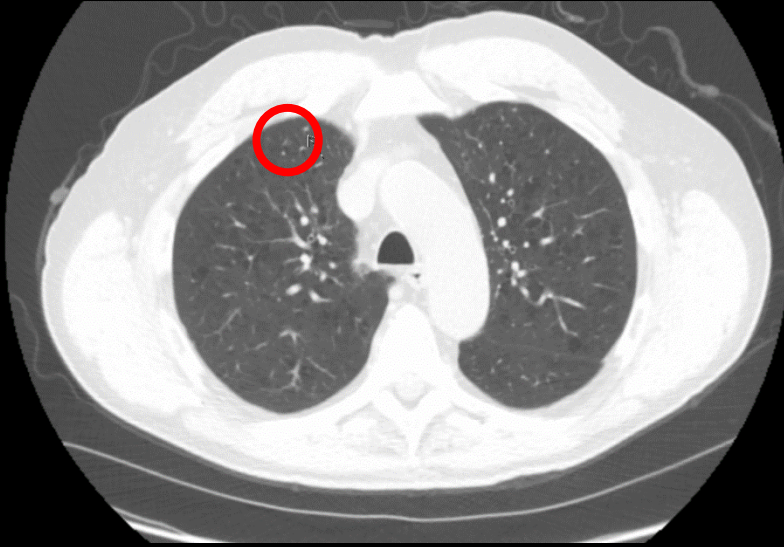
Clinical N and M Staging

- Use of cN1 and/or cM1 means that the index cancer is ***suspected*** to have spread
 - Lesions may or may not be related to RCC (they may be from a different cancer or not be cancer). Over time, some may be determined to be M0
- cNx and/or cMx relates to lesions that are 'indeterminate' for metastasis
 - RCC met, other cancer, or not cancer'

Pathologic N and M staging

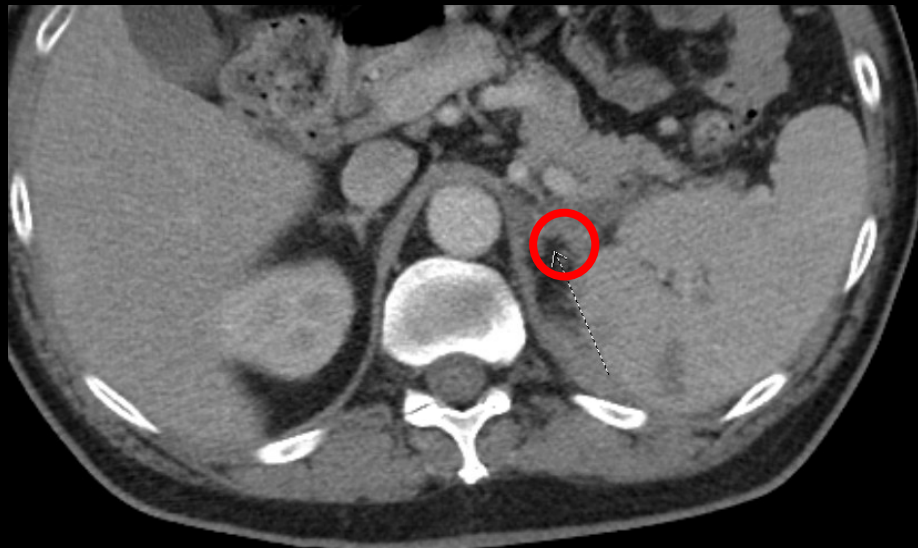
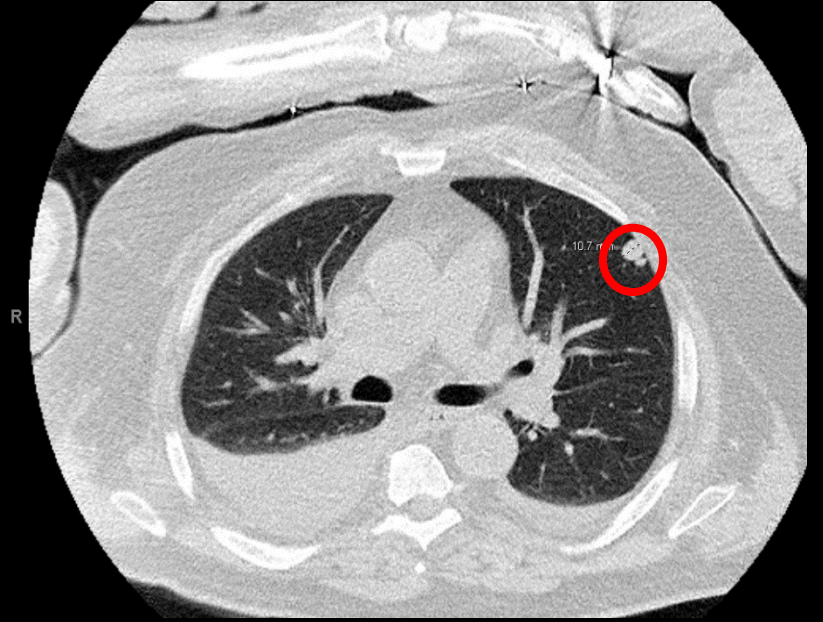
- Frequent use of pNx and pMx is correct
- They are correctly used when there has been no ***pathologic tissue*** (biopsy / surgery) for LN or no distant mets (most patients)

Clinical N and M Staging



Mx:
Indeterminate
lung nodule

M1: lung
metastasis

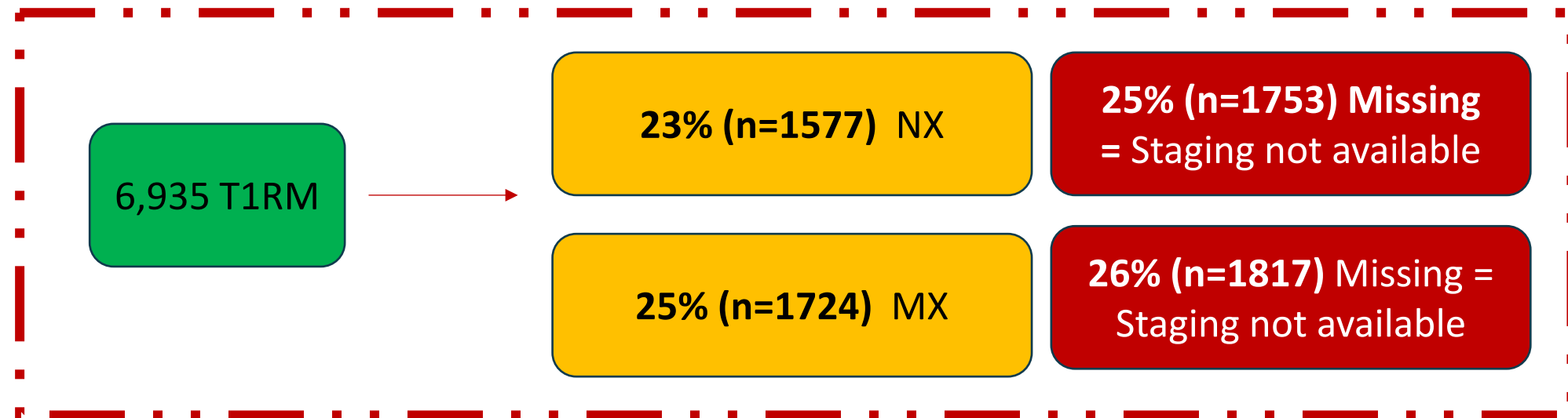
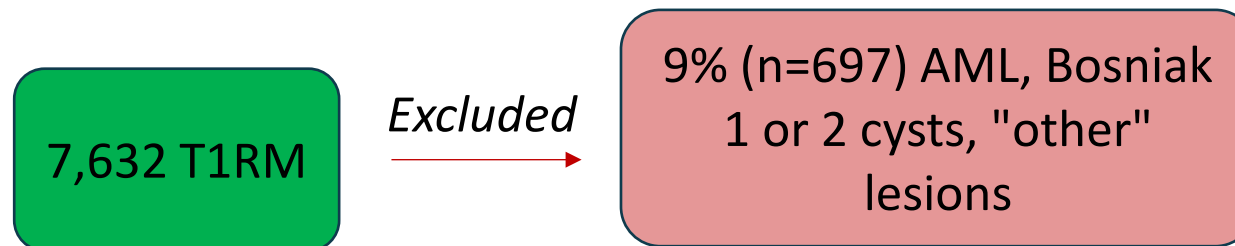
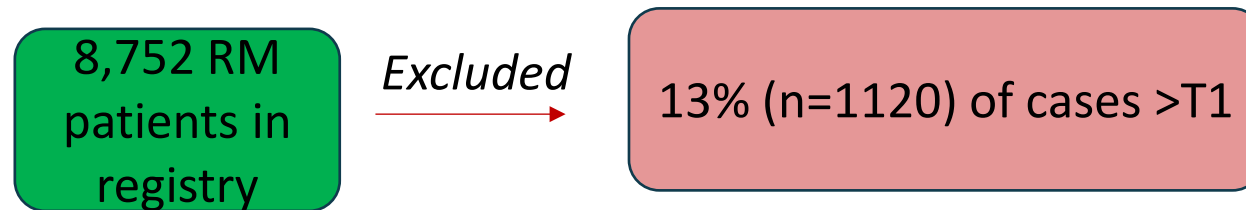


Nx:
Indeterminate
lymph node
(7mm)

N1:
Lymph node
metastases

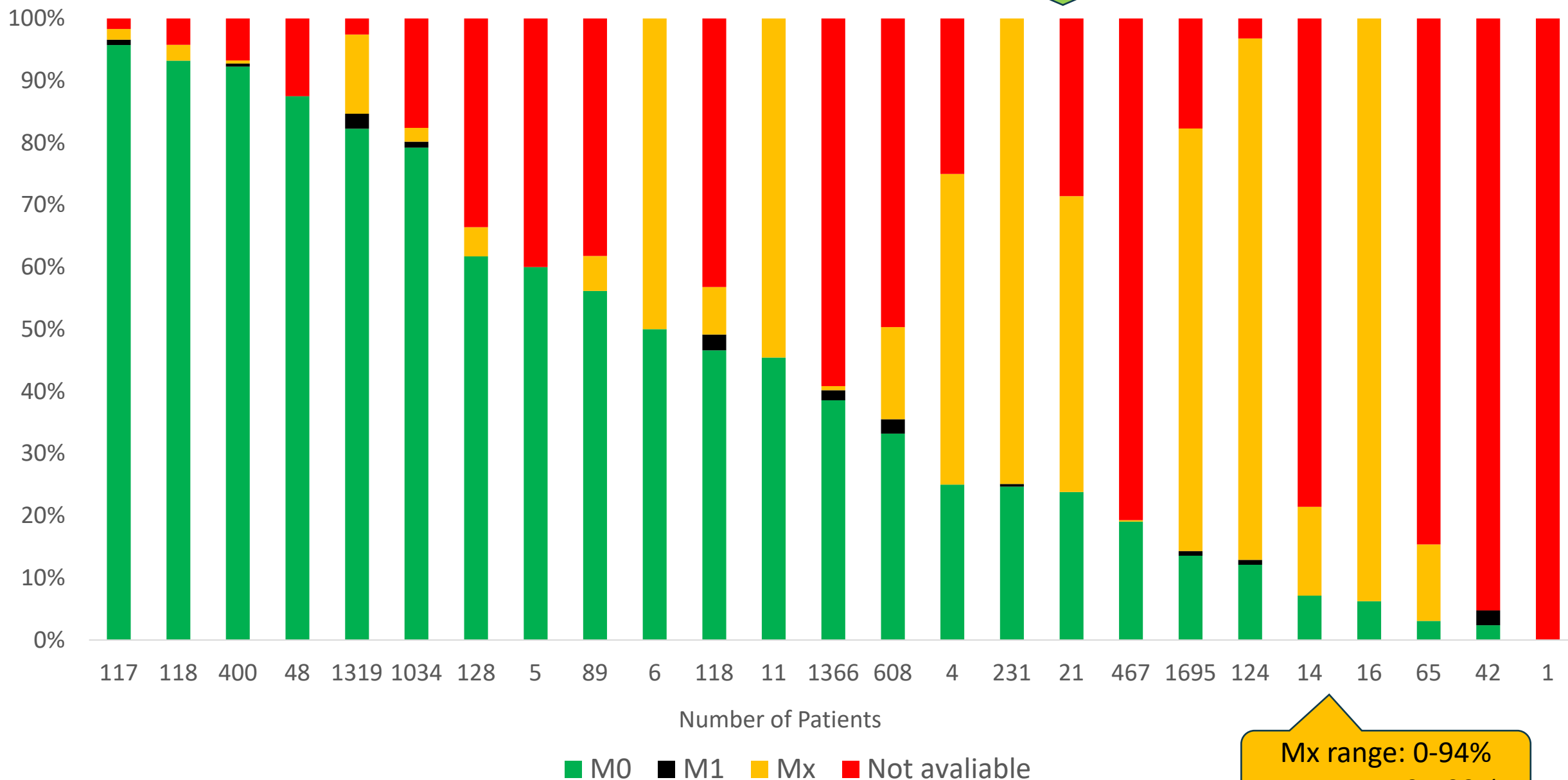


The Problem



Practice Variation: cM Staging

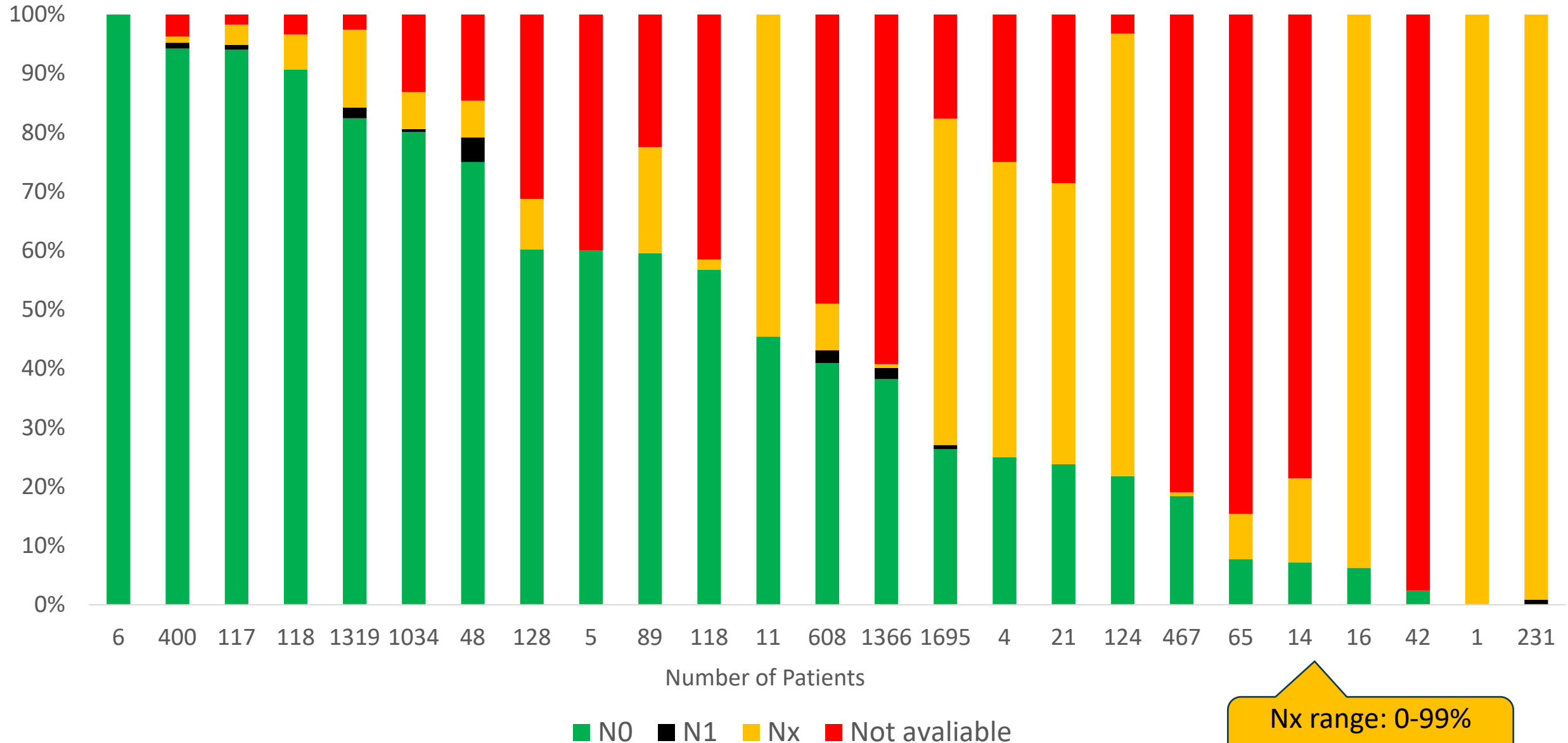
Only 6 practices are in the green for >80%



Mx range: 0-94%
NA range: 0-100%

Practice Variation: cN Staging

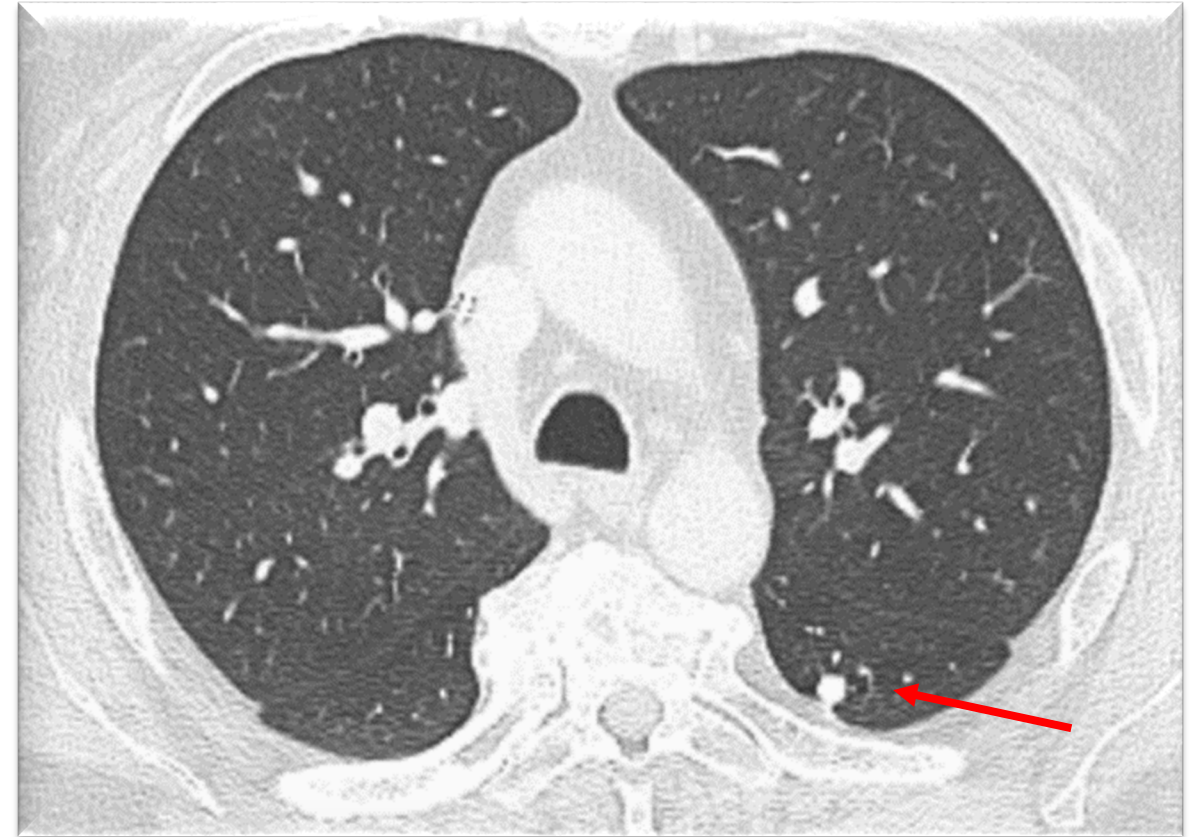
Only 6 practices are in the green for >80%



Nx range: 0-99%
NA range: 0-98%

Case Study

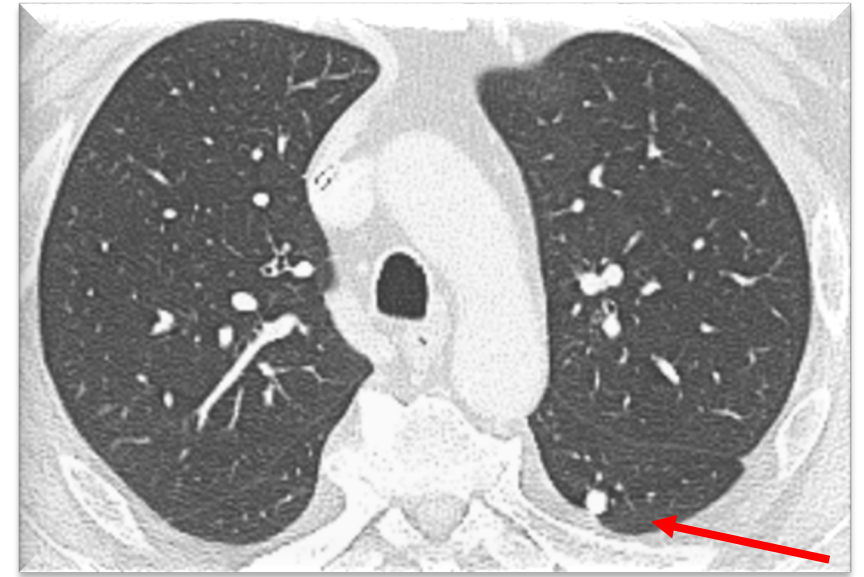
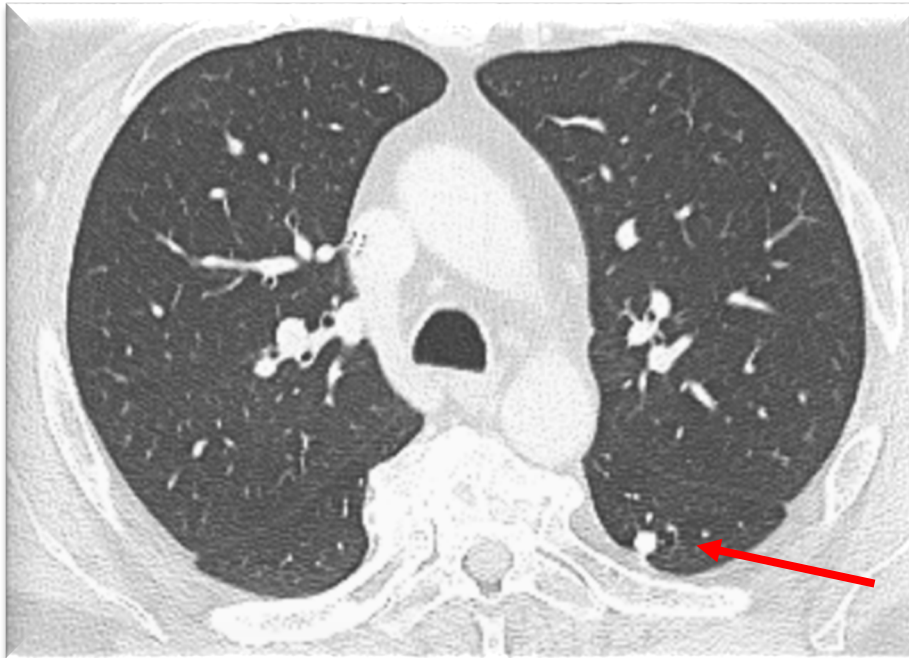
- Clear cell RCC, 3.5 cm, neg margins s/p left RALPN (3/2010) Stage cT1aN0M0 and pT1aNxMx
- F/u with Urology ended after 5 yrs post-op
- Referred back for “Several nonspecific noncalcified nodules within both lung fields not clearly visualized on prior examinations due to difference in technique”
- Shown is a 5 mm indeterminate lung nodule in 2/2023
- What is the M stage?



Case Study

- Clear cell RCC, 3.5 cm, neg margins s/p left RALPN (3/2010) Stage cT1aN0M0 and pT1aNxMx
- F/u with Urology ended after 5 yrs post-op
- Referred back for “Several nonspecific noncalcified nodules within both lung fields not clearly visualized on prior examinations due to difference in technique”
- Shown is a 5 mm indeterminate lung nodule in 2/2023, and stable as of 9/2024
- This is cMx

... and now
clinically
determined to be
cM0 with
subsequent f/u



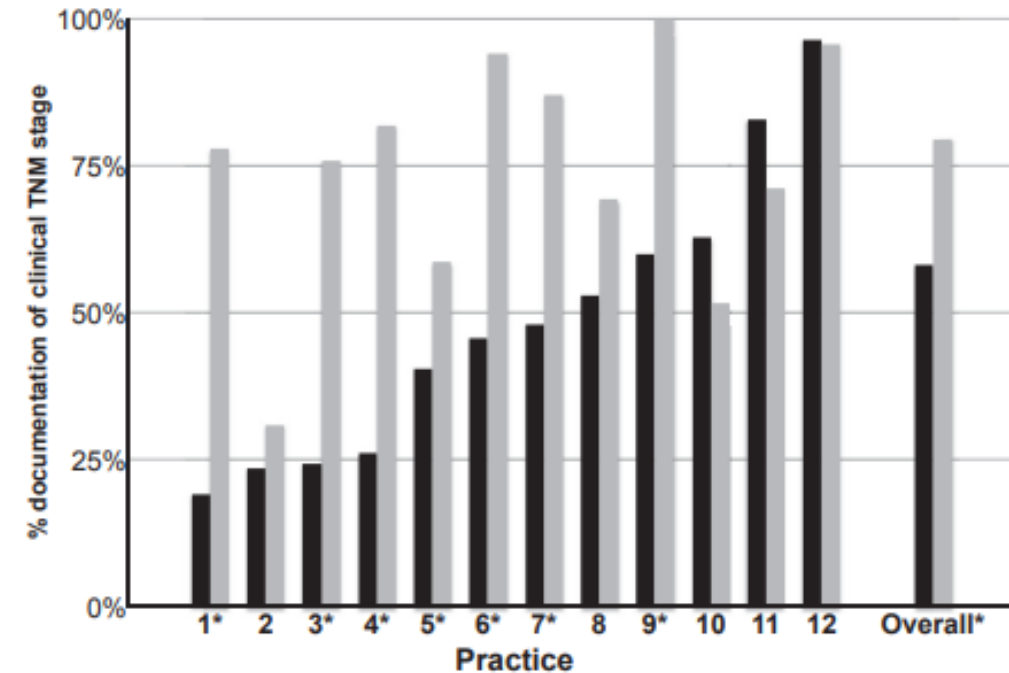
TNM Staging Documentation in Prostate

Health Services Research

Improvement in Clinical TNM Staging Documentation Within a Prostate Cancer Quality Improvement Collaborative

Christopher P. Filson, Brooke Boer, Jon Curry, Susan Linsell, Zaojun Ye, James E. Montie, and David C. Miller

- At baseline, 58% of patients had clinical TNM staging in the medical record, ranging from 19% to 96% across 12 practices
- After the intervention, documentation improved to 79% of patients overall



Staging Documentation in KIDNEY

- At baseline, ~70% of patients had clinical staging in the medical record, ranging from 0% to 96% across 25 practices
 - However, ~26% of these cases are incorrectly documented as indeterminate
- We are hopeful to have similar success as we had with PCa (58% to 79%)





KIDNEY Cancer Visit Template

Patient Name:

MRN:

Date of Visit

New Patient Visit – Renal Mass

- Comorbidities
 - Congestive heart failure (CHF)
 - Chronic kidney disease (CKD)
 - Chronic obstructive pulmonary disease (COPD)
 - Cerebrovascular disease
 - Peripheral vascular disease (PVD)
- Labs
 - CMP
 - Date
 - ALT Value
 - AST Value
 - ALP Value
 - CBC
 - Date
 - Urinalysis
 - Date
 - Proteinuria Value
 - Creatinine
 - Date
 - Value
 - eGFR
 - Date
 - Value
- Tumor Size (cm)
- Tumor Side
 - Right
 - Left
- Clinical T Stage
 - T1a
 - T1b
 - T2a
 - T2b
 - T3a
 - T3b
 - T3c
 - T4
- Clinical N Stage
 - N0
 - N1
 - NX
- Clinical M Stage
 - M0
 - M1
 - MX
- Tumor Complexity
 - R
 - 1
 - 2
 - 3
 - E
 - 1
 - 2
 - 3
 - N
 - 1
 - 2
 - 3
 - A
 - Anterior
 - Posterior
 - X
 - L
 - 1
 - 2
 - 3
 - Hilar
 - Yes
 - No
 - Total score:
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - 10
 - 11
 - 12
- Initial Clinical Impression
 - Benign
 - Suspicious
 - Indeterminate
- Preoperative assessment of volume preservation (PAVP): %
- Pre-operative assessment:
 - Standard PN
 - Technically challenging PN
 - Not amenable to PN
- Treatment Recommendation
 - Surveillance



KIDNEY Cancer Visit Template

Patient Name:

MRN:

Date of Visit

- Timing of next imaging
 - Ablation
 - Partial Nephrectomy
 - Radical Nephrectomy
 - No Treatment Needed
- Chest Imaging
 - Not ordered
 - CT thorax
 - Chest X-Ray

Key Takeaways



Use cNx and cMx only when you really mean it (indeterminate lesions or unclear if metastasis are from RCC)



Abstractors should record staging as best as they are able; add text notes for cases where they are unclear



Clinicians should use cN0 and cM0



Properly identified cases = reporting of ACCURATE oncologic outcomes across MUSIC-KIDNEY

We have a large (>8000) series of patients from clinically diverse settings; We are providing important information for patients and providers about the safety of AS and Rx

Collecting additional, accurate data is essential!



Physician Wellness: Harvesting the High Hanging Fruit

David Canes, MD



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

Physician Wellness: Harvesting the High-Hanging Fruit

David Canes, MD
October 18, 2024





Disclosures:

Founder, WellPrept

Patient care is the most fulfilling thing.



Wellness = thriving (not just surviving)



Manage stress of being urologist

Work - life balance

+ Relationships, pts & colleagues

Sense of pers & prof fulfillment

Be the doctor you set out to be.



Wellness = burnout shield/antidote



Healthcare Staff Wellbeing, Burnout, and Patient Safety: A Systematic Review

Louise H Hall ^{1 2}, Judith Johnson ^{1 2}, Ian Watt ³, Anastasia Tsipa ^{1 4}, Daryl B O'Connor ¹

Affiliations + expand

PMID: 27391946 PMID: [PMC4938539](#) DOI: [10.1371/journal.pone.0159015](#)

Abstract

Objective: To determine whether there is an association between healthcare professionals' wellbeing and burnout, with patient safety.

Design: Systematic research review.

Data sources: PsychInfo (1806 to July 2015), Medline (1946 to July 2015), Embase (1947 to July 2015) and Scopus (1823 to July 2015) were searched, along with reference lists of eligible articles.

Eligibility criteria for selecting studies: Quantitative, empirical studies that included i) either a measure of wellbeing or burnout, and ii) patient safety, in healthcare staff populations.

Results: Forty-six studies were identified. Sixteen out of the 27 studies that measured wellbeing found a significant correlation between poor wellbeing and worse patient safety, with six additional studies finding an association with some but not all scales used, and one study finding a significant association but in the opposite direction to the majority of studies. Twenty-one out of the 30 studies that measured burnout found a significant association between burnout and patient safety, whilst a further four studies found an association between one or more (but not all) subscales of the burnout measures employed, and patient safety.

Conclusions: Poor wellbeing and moderate to high levels of burnout are associated, in the majority of studies reviewed, with poor patient safety outcomes such as medical errors, however the lack of prospective studies reduces the ability to determine causality. Further prospective studies, research in primary care, conducted within the UK, and a clearer definition of healthcare staff wellbeing are

High quality care

Burnout is associated with worse
outcomes in MANY domains

Stanford model of professional fulfillment

2016



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1

Culture of
wellness

2

Personal
resilience

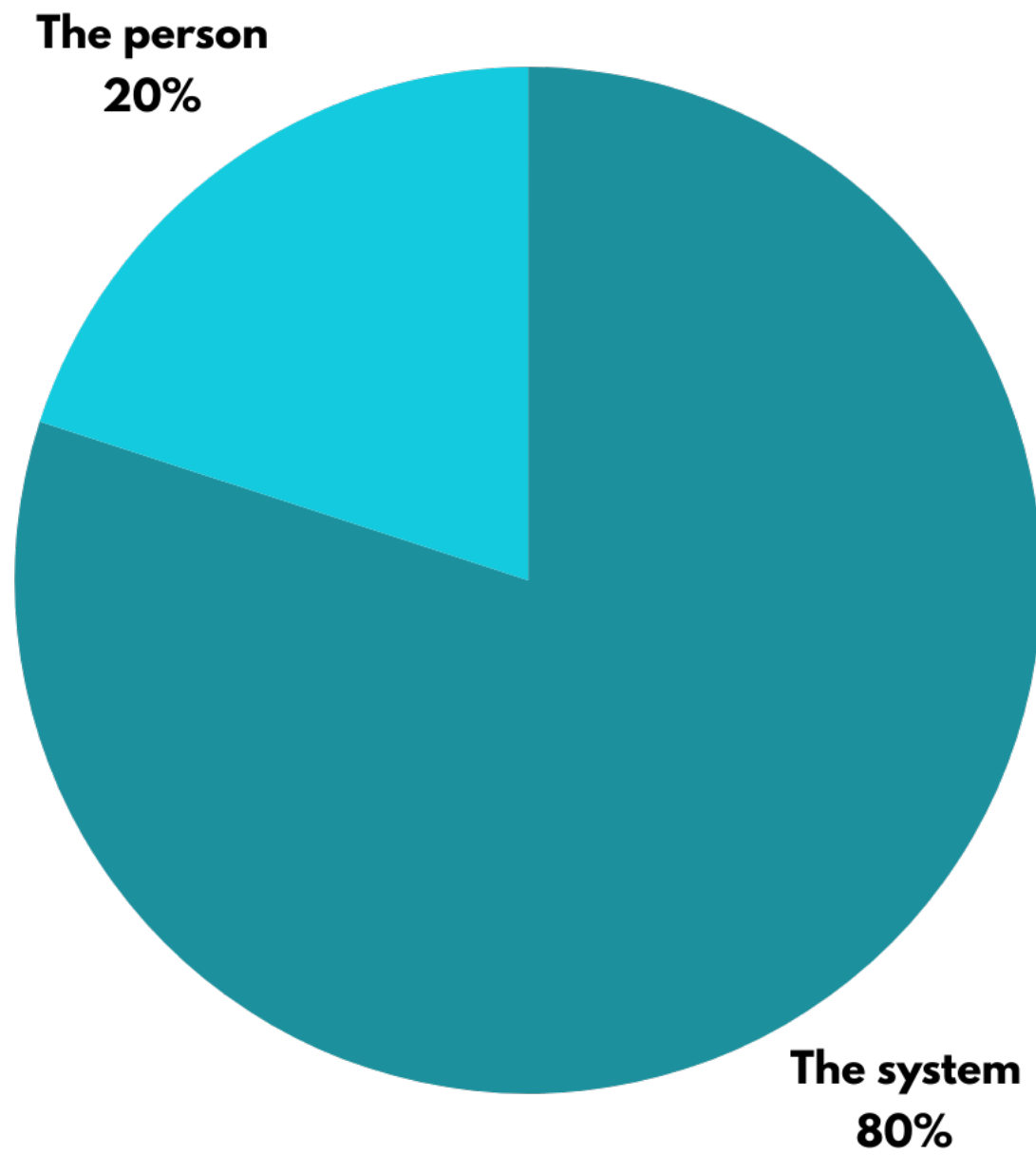
3

Efficiency of
practice



2

Personal
resilience





Dr. Tait Shanafelt

Nation's first ever Chief Wellness Officer

Burnout and self-reported patient care in an internal medicine residency program

Tait D Shanafelt¹, Katharine A Bradley, Joyce E Wipf, Anthony L Back

Affiliations + expand

PMID: 11874308 DOI: 10.7326/0003-4819-136-5-200203050-00008

Abstract

Background: Burnout is a syndrome of depersonalization, emotional exhaustion, and a sense of low personal accomplishment. Little is known about burnout in residents or its relationship to patient care.

Objective: To determine the prevalence of burnout in medical residents and explore its relationship to self-reported patient care practices.

Design: Cross-sectional study using an anonymous, mailed survey.

Setting: University-based residency program in Seattle, Washington.

Participants: 115 internal medicine residents.

Measurements: Burnout was measured by using the Maslach Burnout Inventory and was defined as scores in the high range for medical professionals on the depersonalization or emotional exhaustion subscales. Five questions developed for this study assessed self-reported patient care practices that suggested suboptimal care (for example, "I did not fully discuss treatment options or answer a patient's questions" or "I made...errors that were not due to a lack of knowledge or inexperience"). Depression and at-risk alcohol use were assessed by using validated screening questionnaires.

Results: Of 115 (76%) responding residents, 87 (76%) met the criteria for burnout. Compared with non-burned-out residents, burned-out residents were significantly more likely to self-report providing at least one type of suboptimal patient care at least monthly (53% vs. 21%; $P = 0.004$). In multivariate analyses, burnout--but not sex, depression, or at-risk alcohol use--was strongly associated with self-report of one or more suboptimal patient care practices at least monthly (odds ratio, 8.3 [95% CI, 2.6 to 26.5]). When each domain of burnout was evaluated separately, only a high score for depersonalization was associated with self-reported suboptimal patient care practices (in a dose-response relationship).

Conclusion: Burnout was common among resident physicians and was associated with self-reported suboptimal patient care practices.

First quantitative association
between burnout and poor
care

2002

“

It's about organizational change, systems change, and culture change, not tips and tricks for personal resilience.

Tait Shanafelt, MD



“When organizational wellness efforts are either lip service, or manifest as yoga and granola and learn how to practice mindfulness... they will fall flat.

Tait Shanafelt, MD



“A bad system will beat good people every single time.

Tait Shanafelt, MD



Personal Resilience

Healthy habits

Time for recovery

Wellbeing in the face of adversity

Safety net systems

Culture of Wellness

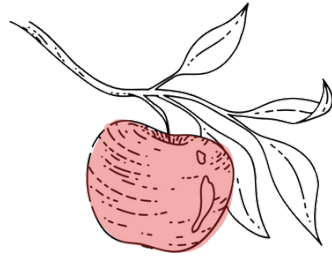
Effective leadership

Respect & inclusivity

Recognition

Regular measurement

Efficiency of practice



👉 Unnecessary admin burden

Optimize workflows

Redesign of inefficient work

Streamline EHR and IT interfaces

Why is efficiency high-hanging fruit?



Humans get used to inefficiencies.





No training re: operational expertise

“Just the way things are”

ROI may not be instantaneous

Unclear metrics



Lack of ideas

Can we control what a patient knows and when they know it?



**Can we control what a patient knows and when
they know it?**



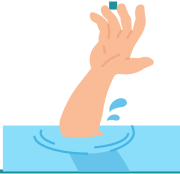


**High hanging fruit?
We got you**

Why address patient pre-education?



June 13, 2016

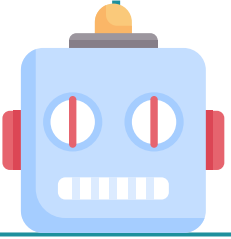


Born
1975



Today
October 18, 2024

June 13, 2016



Born
1975



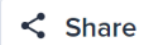
Today
October 18, 2024



NCCN Guidelines for Patients® | Prostate Cancer

[bit.ly/ProstateNCCN4Patients](https://www.nccn.org/patients/guidelines/prostate/index.html)

<https://www.nccn.org/patients/guidelines/prostate/index.html>



Jun 13, 2016 No tags



Docere

Doctor - "to teach"

Would teachers have their
students show up cold?







1



2



Does it work? (Arleeta's story)





Arleeta's phone
call

Patient satisfaction

n = 1750

96%

More likely to
recommend

83%

Less anxious

97%

Better
understanding

— “ —

“Now I don’t have to search Google. What a huge relief! And this is way better than anything I would have found on my own.”

— ” —

-Actual WellPrept patient quote

— “ —

**“This is so great. I wish all my doctors
did this.”**

— ” —

-Actual WellPrept patient quote

— “ —

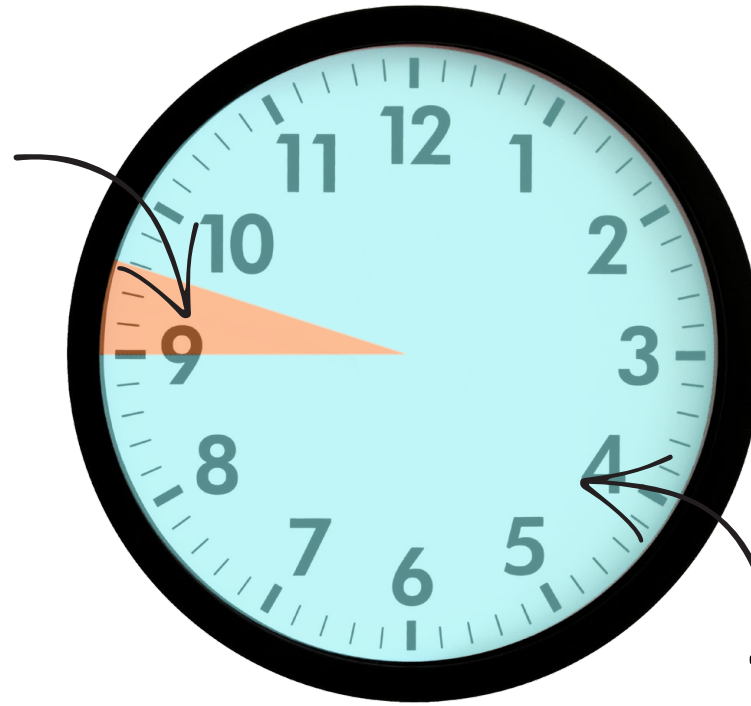
**“I find it nice to see what is presented by the
physician. Makes me more at ease to see
him.”**

— ” —

-Actual WellPrept patient quote

What do doctors think?

**Time spent on
basic spiels**

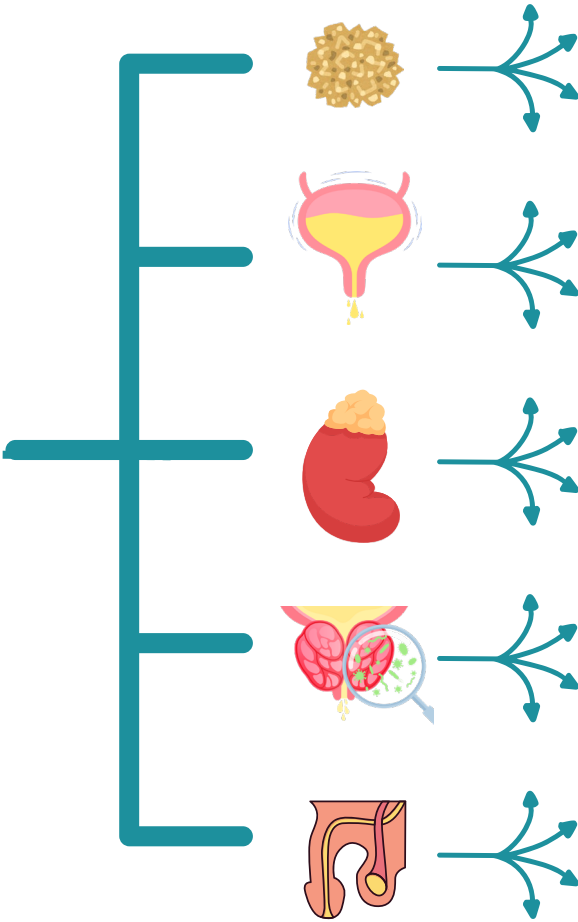


**Time spent doing literally
anything else**

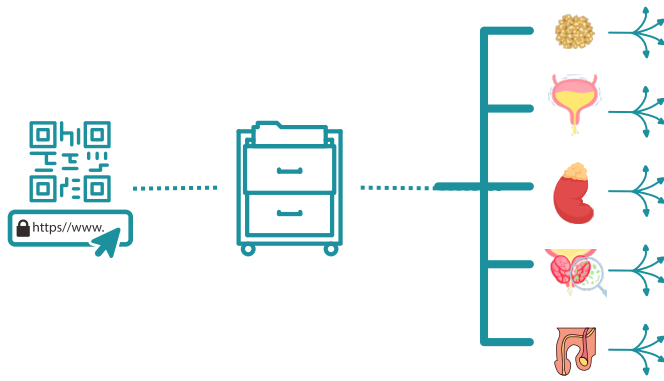
How does this actually work?



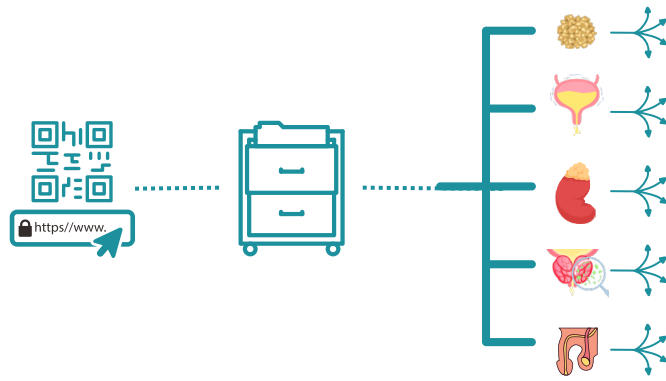
It starts with one link



**Vetted
resources &
your favorite
things**



**Conversations you and the
patient actually want to have**



Better outcomes?
(more on how MUSIC can help
later)



What does it look like to a patient?



Khurshid Ghani, MD

Urologist
Ann Arbor, MI



Meet Dr. Ghani



Khurshid Ghani, MD

Urologist
Professor of Urology
Director, Michigan Urological Surgery Improvement Collaborative

Michigan Medicine Profile



Resources from Dr. Ghani

> Kidney Stones

■ Kidney mass / Kidney cancer

Kidney cysts

Urothelial Carcinoma of the Upper Tract

UPJ obstruction

► Kidney Stones

Dr. Ghani's Recommended Resources

 Kidney stone patient guide
Website

 PCNL procedure (EAU)
Booklet


 Shock wave procedure (EAU)
Booklet

 Litholink Order Form
PDF

 Low oxalate diet (U Mich)
PDF

 How to prevent kidney stones
PDF

 Best kidney stone procedure (Decision Aid)
MUSIC

 Ureteral stent recovery information
MUSIC

 Managing pain after ureteroscopy
MUSIC

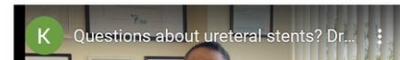
Recommended Videos

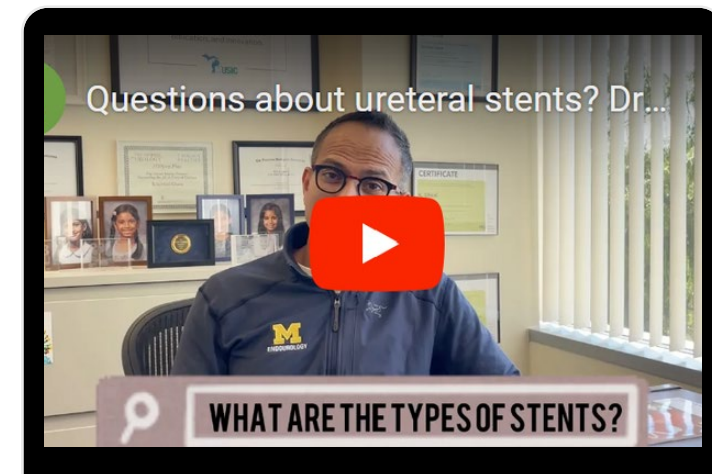
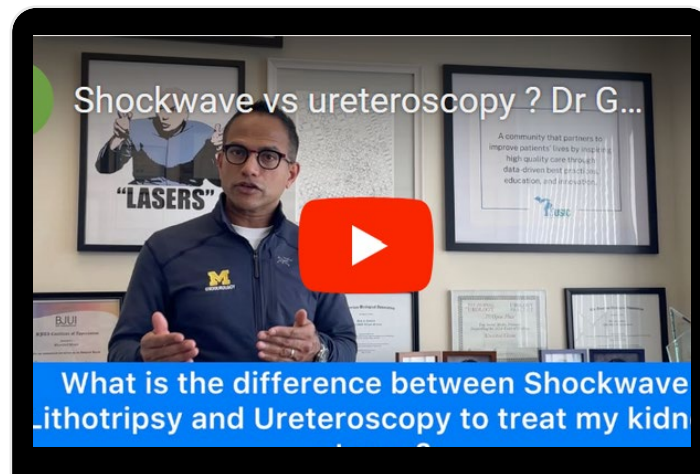


Is ureteroscopy painful?



Shockwave vs ureteroscopy ?

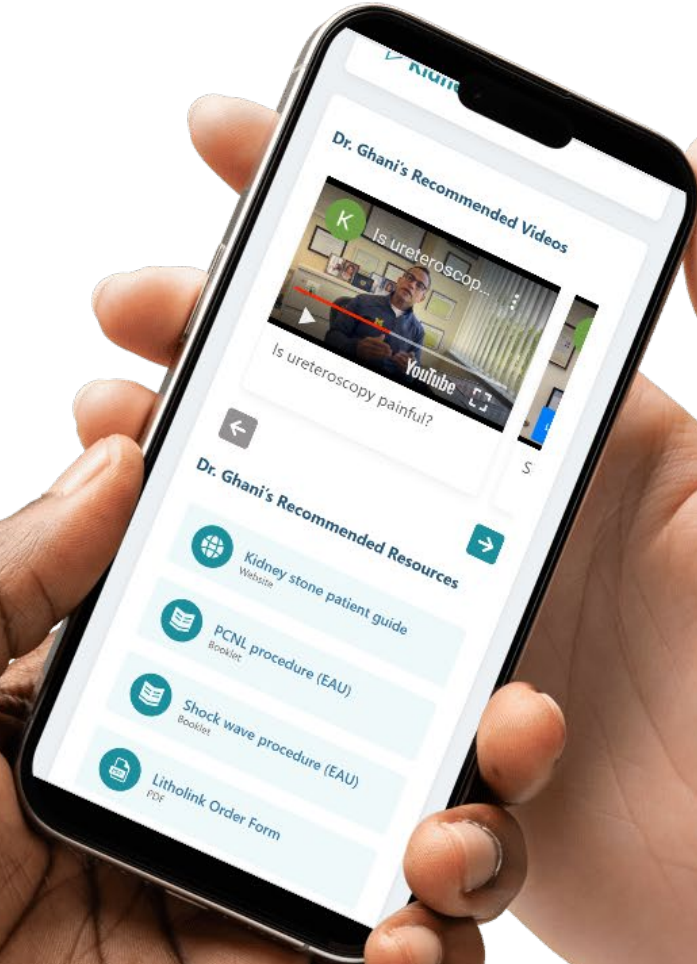




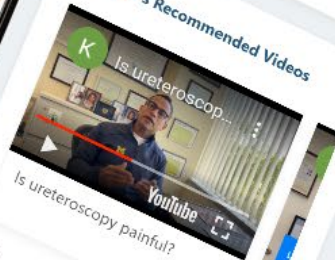
Teach it once. Share it forever.







Dr. Ghani's Recommended Videos



Is ureteroscopy painful?

YouTube



Dr. Ghani's Recommended Resources



Kidney stone patient guide
Website



PCNL procedure (EAU)
Booklet



Shock wave procedure (EAU)
Booklet



Litholink Order Form
PDF

How do you share it?

1

Pre-education

2

Face to face

3

Parting gift

2

Face to face



3

Parting gift

Dr. Stencel's favorite resources can be found here.

Please scan the QR codes or enter the web addresses on a desktop computer

Prostate Cancer



<https://go.wellprept.com/20K3U>

PSA, Prostate Cancer Screening



<https://go.wellprept.com/gpu7nYaq>

Bladder cancer



<https://go.wellprept.com/v4htfk>

Testicular cancer



<https://go.wellprept.com/v-Wlcmn>

Urothelial Carcinoma of the Upper Tract



<https://go.wellprept.com/gforR>

Adrenal Mass



<https://go.wellprept.com/VHx8S2>

Stoma Care



<https://go.wellprept.com/gp0b9d>

Kidney cancer, localized

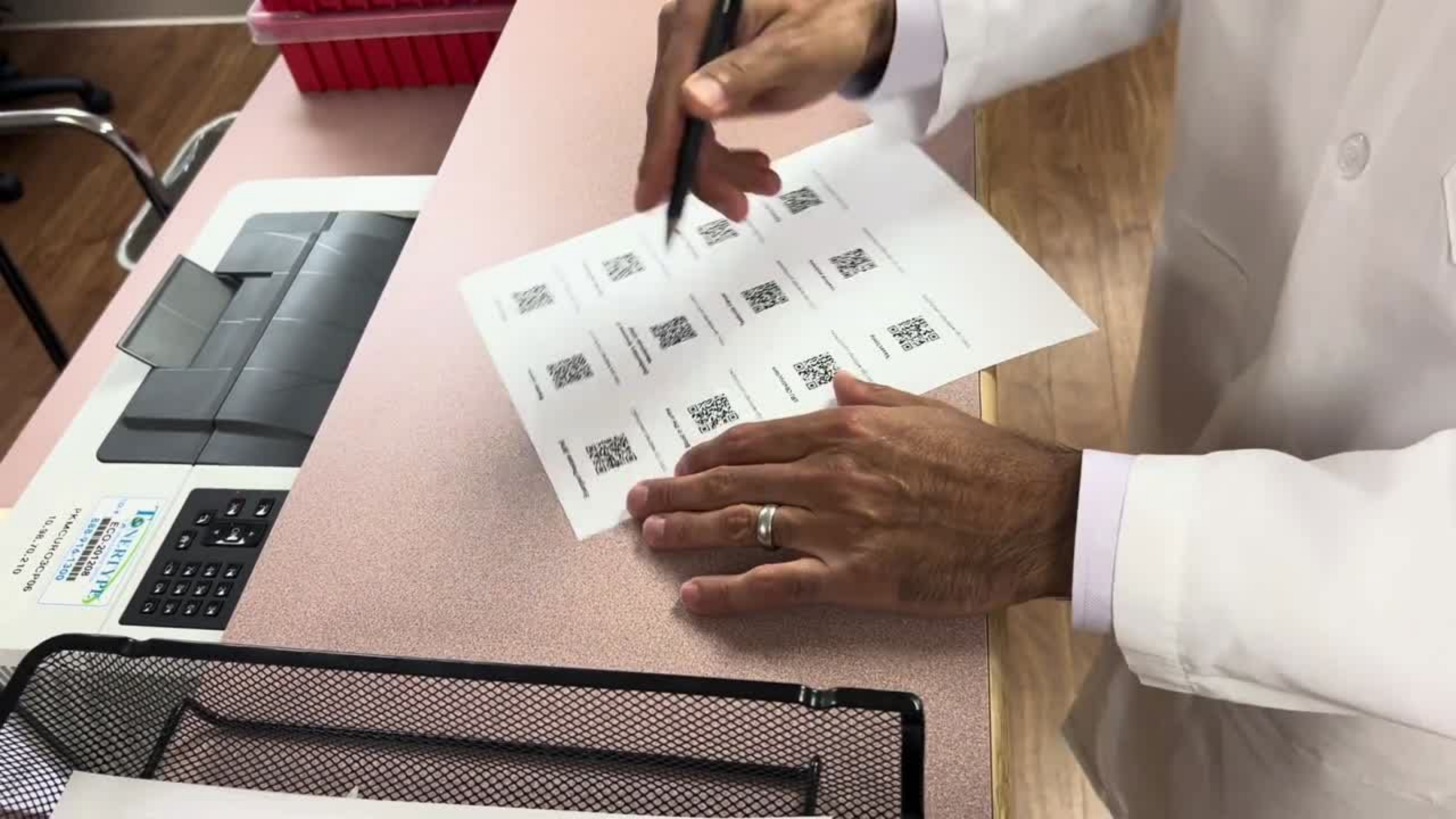


<https://go.wellprept.com/L3CXrW>

Kidney cancer, advanced



<https://go.wellprept.com/gp07NYz>




After visit summary / MyChart message

User SmartPhrase – DCQRHEMATURIA [330513]

Do not include PHI or patient-specific data in SmartPhrases.

I have organized my favorite **blood in the urine** resources on this page.
Please scan the QR code with your phone and review when you have time.



Or, you can direct your browser at home to:

<https://bit.ly/blood-in-urine>

Patient Instructions

Attach reference + Add Clinical References

QR Code 1 Estrace Cream 2 DCQRBPH 3 DCQRPROSTATECANCER 4

DCQRPSASCREENING 5 DCQRHEMATURIA 6 DCQRBLADDERCANCER 7 DCQRED 8

DCQRKIDNEYCANCER 9 DCQRKIDNEYSTONES 0 DCQRTESTISCA DCQRKIDNEYCYST

DCQRAFTERRALP

★ B A ↶ ↷ + ? + Insert SmartText ⬅ ➡ 🔄 🔍 📎

Wrap-Up

[Patient Instructions](#) [Communications](#) [Appointment Requests](#) [Send CC Chart](#) [HRU \(FCC\)](#) [Charge Capture](#)

Patient Instructions

Attach reference

 Add

Clinical References

QR Code 1

Estrace Cream 2

DCQRBPH 3

DCQRPROSTATECANCER_4

DCQRPSASCREENING 5

DCQRHEMATURIA 6

DCQRBLADDERCANCER 7

DCQRED 8

DCQRKIDNEYCANCER 9

DCQRKIDNEYSTONES_0

DCQRTESTISCA

DCQRKIDNEYCYST

DCQRAFTERRALP



I

✉ Communications

Templates

 **New Patient Letter**

[+ New Communication](#)







Pre-education

WellPrept Notify

You (when precharting), and/or your team
(admin assist, MA, scribe, care coordinator,
appointment scheduler)

Send Condition Information

Please remember to not send PHI in your default message

Clinic Date (Optional)	Patient Phone	Patient email	Customize Your Message	Condition
2023-11-10	 +1 6174613816	dcanes@gmail.com	To help you and your family learn	Prostate Cancer
2023-11-10	 +1 7817448427	david@canes.net	To help you and your family learn	Kidney stones
2023-11-10	 +1 7814008000	patient@email.com	To help you and your family learn	Kidney Cysts
2023-11-10	 +1 6174448972	best@comcast.net	To help you and your family learn	Blood in the urine

Cancel

Submit

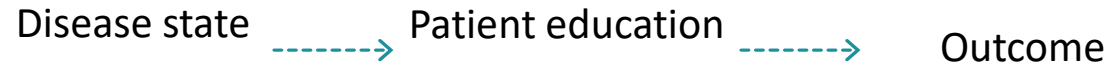
What's next

Improve your wellness

Incorporate into your workflow

Study it

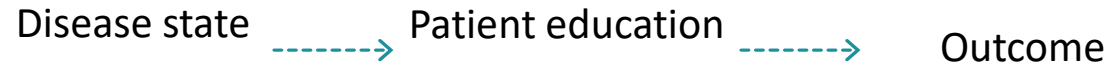




Small renal masses - does it allay anxiety on surveillance?

Low risk CaP - does it increase adherence to surveillance?

BPH - improve decision making among surgical choices?



Post prostatectomy incontinence - does targeted edu improve coping/anxiety?

Does edu on dietary and lifestyle modifications improve adherence and reduce stone recurrence?

Does stent education via WellPrept reduce post procedure phone calls?



**Patient
satisfaction**



Physician wellness

Let's start with your wellness &
your patients' satisfaction

And then tackle high hanging fruit
together







:



!





Electronic Delivery of Patient Education: WellPrept Pilot Results

Tudor Borza, MD



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

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

Patient Educational Materials



Ureteral Stent: What to expect and how to manage



Is it Normal to Feel Anxious After Choosing AS?

- Men experience various emotions after choosing AS. Some have stress around regular testing, fear of cancer progressing, or dying

Will These Feelings Change Over Time?

- In the first year of AS, it is not unusual to feel anxious, nervous, or stressed
- With time, many men learn more about the disease and find ways to deal with their stress
- Most patients report significantly lower levels of anxiety within 2 years

Self-Care Strategies (for patients)

- Regular exercise
- Doing activities you enjoy – sports, fishing, nature, etc.
- Maintaining normal routines
- Spending quality time with loved ones
- Meditation and yoga
- Getting the proper amount of sleep



Active Surveillance Treatment Guide for Small Renal Masses



Managing Pain and Urinary Symptoms following Ureteroscopy

- You had surgery to remove or fragment your kidney stones, also known as an ureteroscopy.
- After surgery, you may have some degree of pain or discomfort.
- In most patients, these symptoms can be managed with medications.

Common symptoms after kidney stone surgery

- Helps with urinary symptoms
- Helps relieve
- May assist kidney
- Prevents blood

Medications may be prescribed following your kidney stone surgery

- Helps with urinary symptoms
- Helps relieve
- May assist kidney
- Prevents blood

Examples: Tamsulosin

- Prevents blood



Roadmap for Patients with T1 Renal Masses

Evaluation Phase

The Evaluation Phase involves four important steps to determine whether to pursue immediate treatment or initial surveillance for a renal mass up to 7 cm in size (T1):

- Step 1: Make sure you've had appropriate testing
- Step 2: Figure out your estimated Life Expectancy
- Step 3: Review appropriateness for surveillance based on MUSIC criteria*
- Step 4: Participate in shared-decision making

*Some patients will choose treatment even if they are a candidate for surveillance based on their preference or uncertainty about surveillance.

Step 1: Obtain Appropriate Testing

- High quality imaging (CT or MRI)
- Baseline labwork: Complete Blood Count, CMP, urinalysis, (consider albumin:creatinine ratio, CRP)
- Chest imaging (such as X-ray) for mass if >3cm, CT thorax preferred for >5cm
- Consider renal mass biopsy (for solid, accessible masses)

Step 2: Estimate Life Expectancy

- Based on any serious medical conditions you have, you can calculate the cardiovascular index (CVI) score (range: 0-6) by assigning points as follows:

Points	Condition
2	Congestive heart failure (CHF)
1	Chronic kidney disease (CKD)
1	Chronic lung disease, such as COPD
1	Stroke or TIAs
1	Other major diseases, such as liver failure or Peripheral vascular disease (PVD)

- We have developed tables for masses from 1 to 7 cm, with color schemes to indicate an estimated life expectancy that is >10 years, between 6 and 10 years, or between 1 and 5 years. This is the table for patients with a 3 cm renal mass:

Sex	Age	CVI 0	CVI 1	CVI 2	CVI 3	CVI 4	CVI 5	CVI 6
Female	50	55	60	65	70	75	80	85
Male	50	55	60	65	70	75	80	85

Legend:
Green = Life Expectancy > 10 years
Yellow = Life Expectancy 6 - 10 years
Orange = Life Expectancy 1 - 5 years

For information on your specific situation, scan this QR code:





Imaging After Kidney Stone Surgery

Urologists recommend imaging after kidney stone surgery (also known as ureteroscopy or shockwave lithotripsy).



The Best Kidney Stone Procedure for Me

Ureteroscopy (URS)

A small telescope/camera is inserted into the bladder and urinary tract to look at the stone. Your urologist then breaks and/or removes your stone with a laser.

Shockwave Lithotripsy (SWL)

A machine makes sound waves that break up stones into smaller pieces from outside the body. Pieces of stone are then passed in the urine over time.

SWL can treat most kidney stones, but sometimes it is not recommended.

Treatment Differences

URS	SWL
in the ureter, multiple stones, or stones and harder stones	Stones in the kidney and upper ureter, only 1 stone and softer stones
More effective: Higher chance of being stone free (no stones left)	Less effective: Lower chance of being stone free (no stones left)
The procedure usually required	Can require other procedures
Both URS and SWL have low overall risk of complications	
Low risk	Lowest risk
Patients describe both URS and SWL as somewhat painful	
Higher chance of needing a stent making it more painful	Associated with the least amount of pain according to patients
Both URS and SWL require time to recover, this varies by patient	
Generally, recovery is longer (3 to 5 days)	Generally, recovery is shorter (1 to 3 days)



Safely Managing Pain After Kidney Surgery

When is Salvage Radiation Therapy Given?

- Recent data suggests that giving radiation at a level of $\geq 0.2\text{ng/mL}$ (ideally before 1.0ng/mL) is as effective as giving radiation therapy while the PSA is still undetectable.
- A PSA of $\geq 0.2\text{ng/mL}$ is typically when doctors and patients consider giving salvage radiation therapy.
- The exact value that is best for you may vary and you should discuss this further with your urologist or radiation oncologist.

Ureteral Stents: What You Need to Know

or surgeries may be needed

Resources are Underutilized

Resources Distributed vs Procedures per Month

MUSIC ROCKS Managing Pain and Urinary Symptoms following Ureteroscopy

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- Urinary frequency, and/or urgency
- Burning with urination
- Blood in the urine
- Sensation of incomplete emptying of the bladder

The following recommended medications may be provided by your doctor to reduce symptoms following your kidney stone surgery

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	Alpha Blockers
<ul style="list-style-type: none">Best at managing flank and abdominal pain related to kidney stones by reducing inflammation <p><u>Examples:</u> Toradol, Ibuprofen (Motrin), Naproxen (Aleve), Diclofenac</p>	<ul style="list-style-type: none">Helps with flank pain, abdominal pain, and urinary symptoms after surgery by relaxing bladder and ureter musclesHelps relieve stent discomfortMay assist kidney stone fragment passage <p><u>Examples:</u> Tamsulosin (Flomax)</p>
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<ul style="list-style-type: none">Manages flank and abdominal pain after surgery by blocking pain signalsVery effective when combined with NSAIDs <p>*Do not take more than 3000 mg of acetaminophen in a 24 hour period</p>	<ul style="list-style-type: none">Prevents bladder spasms and bladder pain by preventing involuntary muscle movementsHelps relieve stent discomfort <p><u>Examples:</u> Oxybutynin (Ditropan) and Tolterodine (Detrol)</p>

You may also be prescribed the following optional medications to help reduce your symptoms

Opioids** ***	Pyridium
<ul style="list-style-type: none">Manages flank and abdominal pain after surgery by blocking some pain receptorsCan cause nausea, vomiting, constipation <p><u>Examples:</u> Norco, Vicodin, Oxycodone</p>	<ul style="list-style-type: none">Helps with painful urination by interacting with the bladder surface to provide pain reliefMay turn urine orange

**Shorter duration (less than 3 days) is recommended to prevent dependence
***Most patients are able to manage symptoms without these drugs

Page 1 of 2

Total URS

~70%

Paper Brochures Distributed

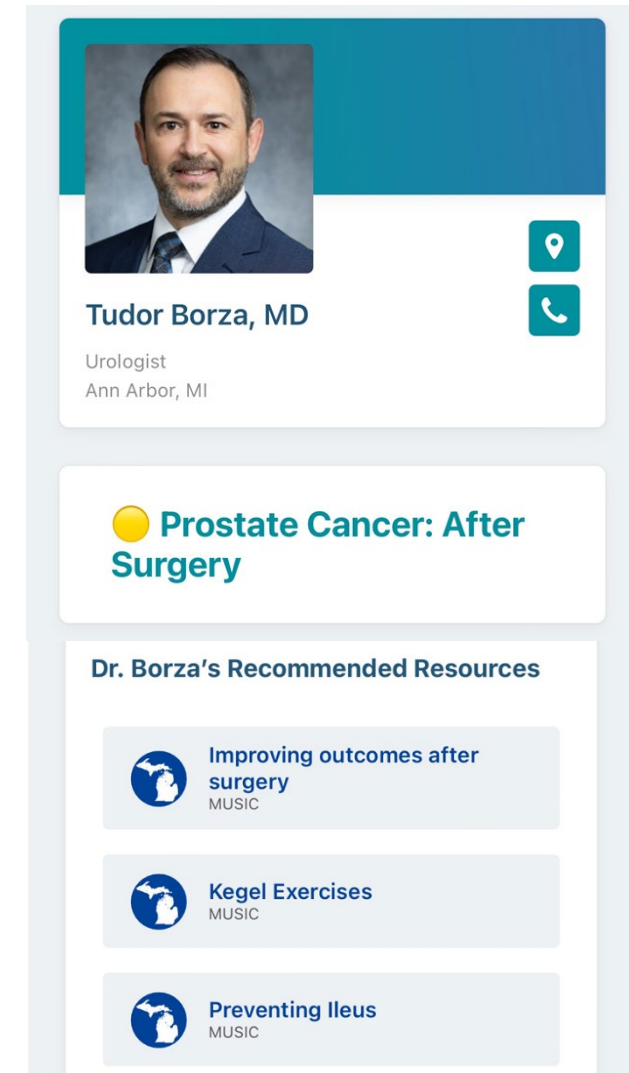
Website Brochure Views

Managing Pain after URS

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

Can We Increase Distribution?

- Doctor to patient content distribution system
- Pilot ran July - Sept
- Personalized pages for MUSIC physicians
- MUSIC materials pre-loaded



How It Works: WellPrept Page



Tudor Borza, MD

Urologist
Ann Arbor, MI



Meet Dr. Borza

Tudor Borza, MD

Urologist

Assistant Professor, University of Michigan Health

Director of Michigan Urological Surgery Improvement Collaborative (MUSIC) Prostate Program

Michigan Medicine Urology Profile



Michigan Medicine Contact Page



Michigan Urological Surgery Improvement Collaborative



OPEN Profile



“

Resources from Dr. Borza

● Prostate Cancer

● Prostate Cancer: After Surgery

● Prostate Cancer: Active Surveillance

● PSA, Prostate Cancer Screening

■ Kidney mass and Kidney cancer

■ Kidney Cancer: After Surgery

Goals of the Pilot

#1

Evaluate implementation strategies

#2

Explore provider perceptions

How It Works: Implementation

QR Code/Link

- Flyers, business cards, table tents
- Give to patients during appointment

EHR Integration

- Ad hoc integration
- SmartPhrases added to AVS/discharge summary

Patient Portal/Email

- Added to appt reminders
- In response to questions

WellPrept Notify

- Patient info into WellPrept database
- Links auto sent before appt

WellPrept Pilot by the Numbers



13 MUSIC Urologists

- 11 distributed materials to patients
- 11 responded to pilot survey



3 Months

- Most took a month to implement

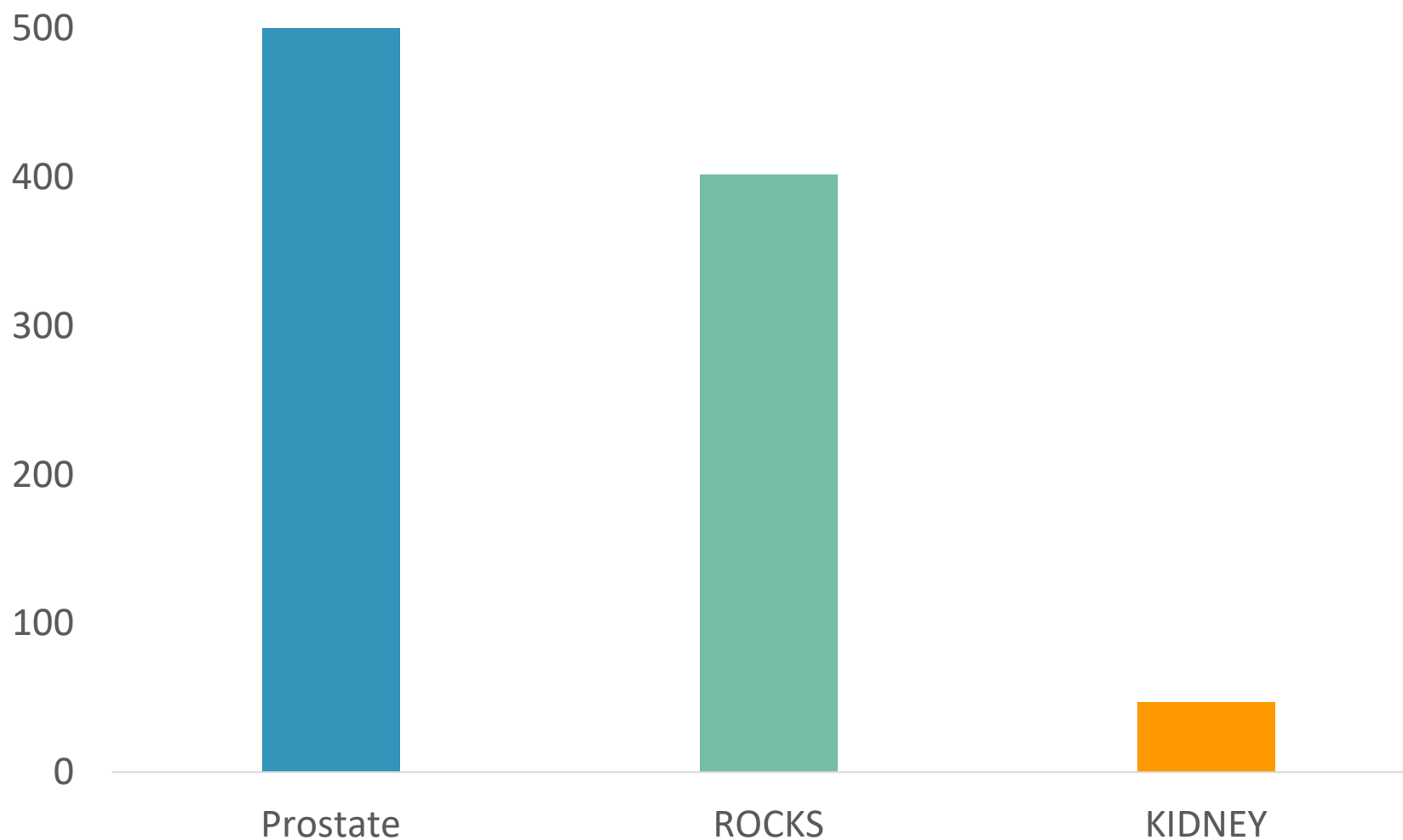


>1,300 page views, 1400 resource clicks

- Top pilot provider had 354 views!

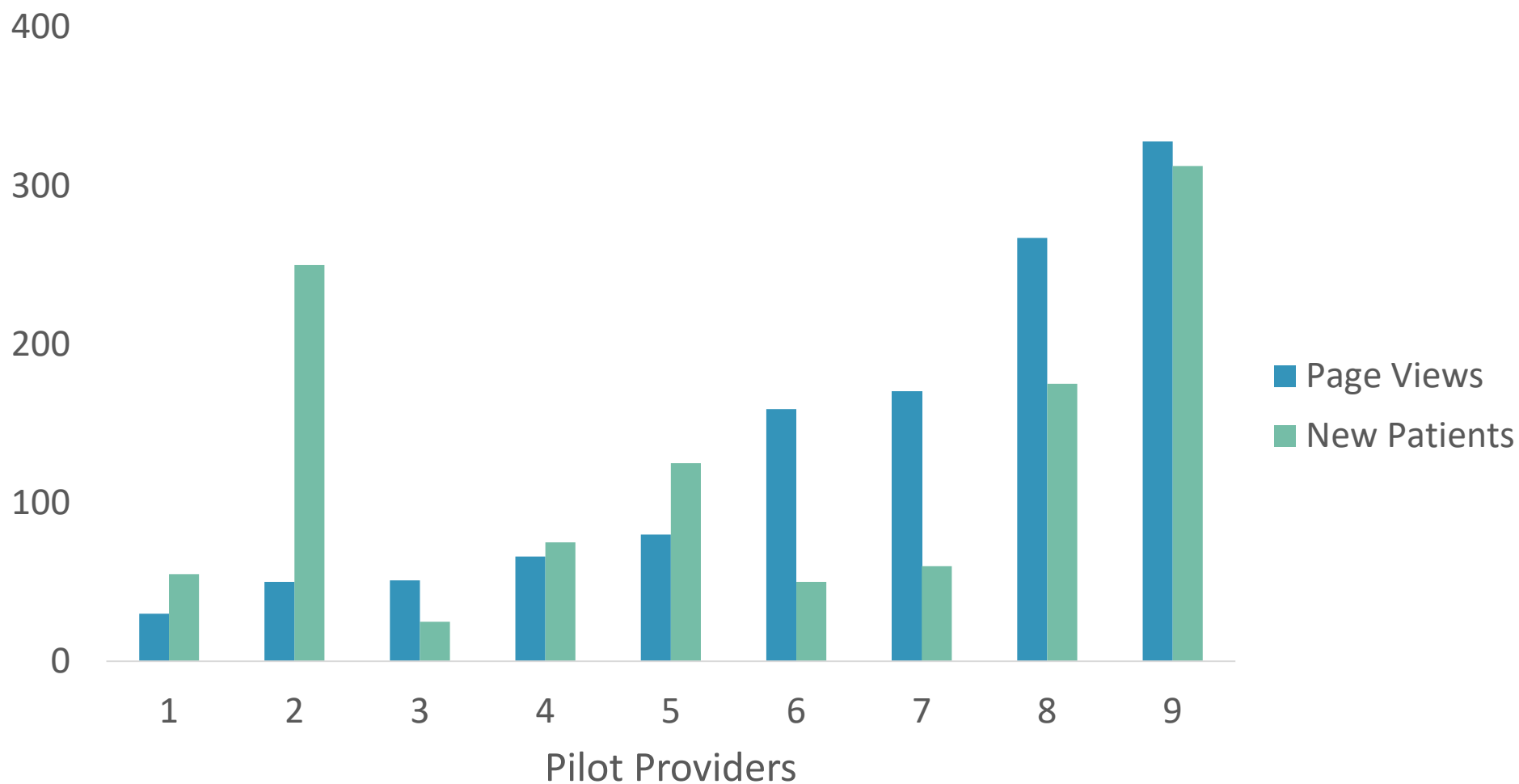
WellPrept Pilot by the Numbers

Views by Patient Type



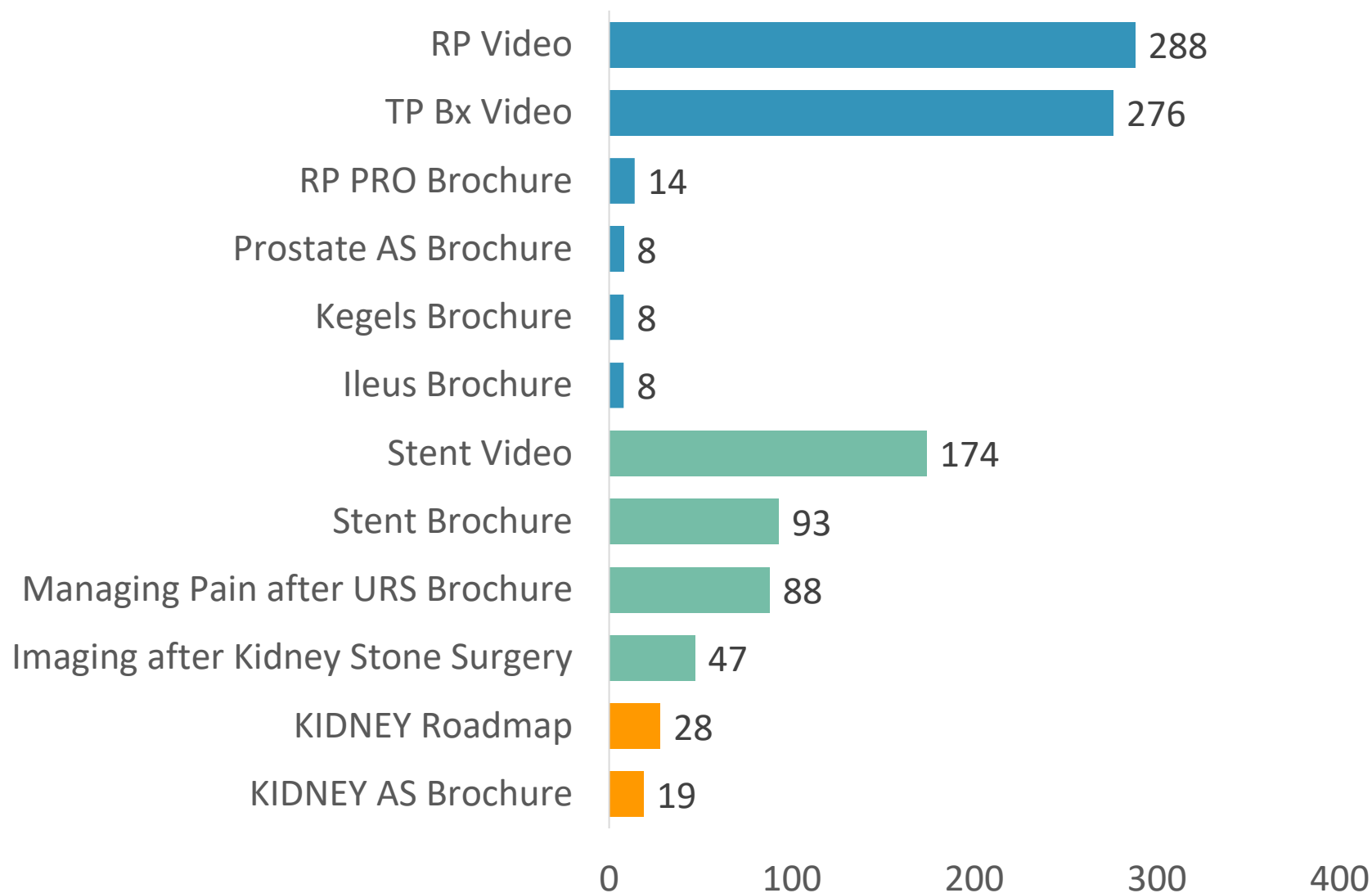
WellPrept Pilot by the Numbers

Views by Provider



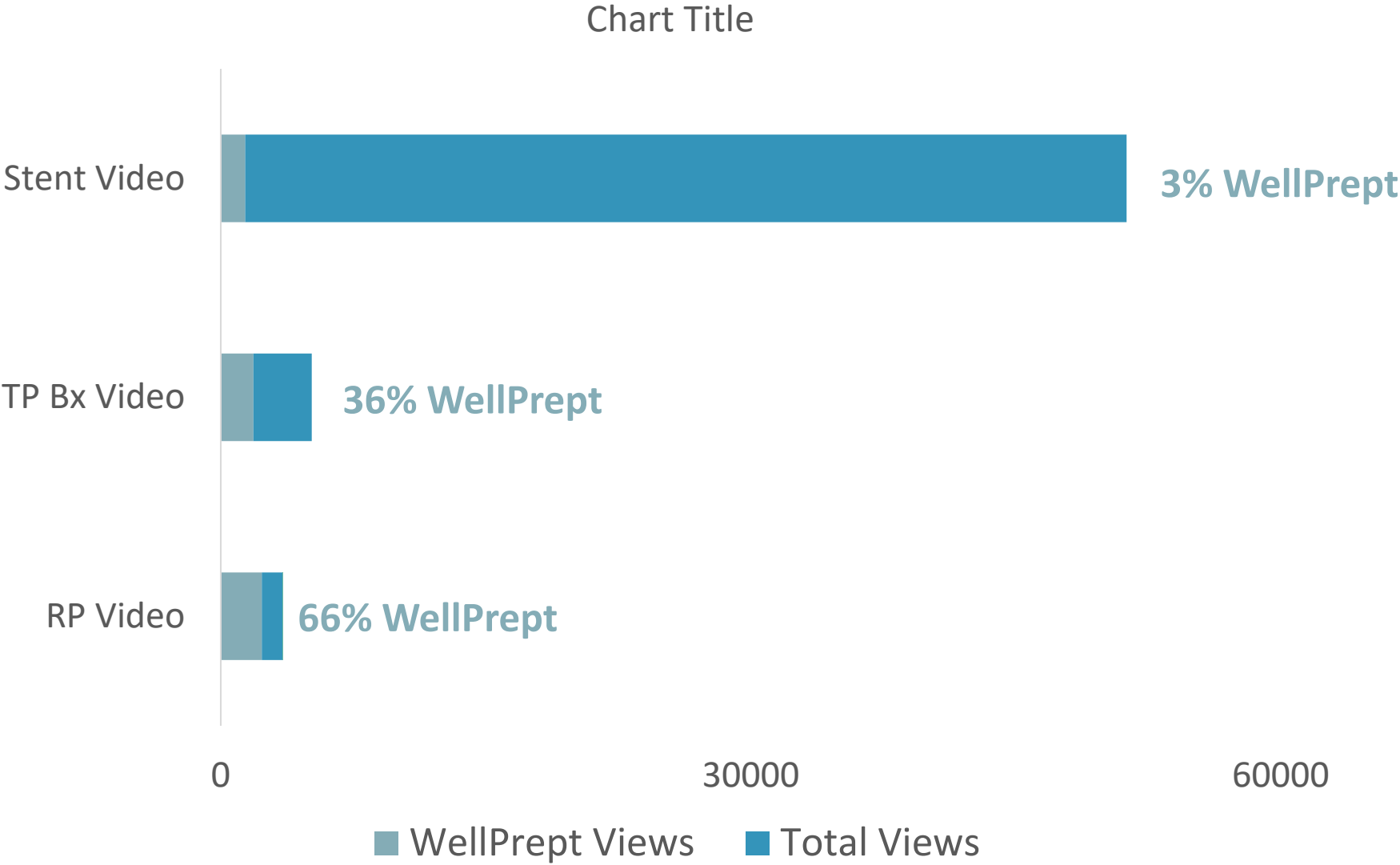
WellPrept Pilot by the Numbers

Views by Resource





Beyond the Pilot: MUSIC Resources on WellPrept



Resources Utilization: Did WellPrept Help?

Resources Distributed vs Procedures per Month

MUSIC ROCKS Managing Pain and Urinary Symptoms following Ureteroscopy

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**Shorter duration (less than 3 days) is recommended to prevent dependence
***Most patients are able to manage symptoms without these drugs

Page 1 of 2

Total URS

~70%

Paper Brochures Distributed

Website Brochure Views

Managing Pain after URS

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Page 1 of 2

Total URS

~30%

WellPrept Brochure Views

Paper Brochures Distributed

Website Brochure Views

Pre-WellPrept

WellPrept Views by Implementation Strategy

QR Code/Link

- 4 Providers
- 615 page views
- ~2000 new and return patients

EHR Integration

- 2 Providers
- 329 page views
- ~250 new and return patients

Patient Portal/Email/Text

- 5 Providers
- 370 page views
- ~2000 new and return patients

WellPrept Notify

- 2 Providers
- 267 page views
- ~300 new and return patients

Provider and Patient Experience

Providers

All found WellPrept useful

All reported WellPrept improved patient understanding

20% reported WellPrept shortened office visits

“Patients had more specific questions, especially about surgery”

What could be improved?

- Integration with EHR
- Easier editing
- Searchable on Google

Patients

90% of providers received positive feedback on WellPrept from patients

- “Liked surgical videos”
- “All felt this was helpful”
- “Happy to have a resource”

What are Patients Saying?

“This is insanely useful to me”

-Patient of Dr. Rogers

**“These documents are very helpful
during a very stressful time. Thanks”**

-Patient of Dr. Palka

**“Frankly I’m BLOWN AWAY that my
doctor would organize all of this for me.
There is good in the world after all”**

-Patient of Dr. Rogers

WellPrept Beyond the Pilot



LUNCH



Growing MUSIC: Benign Prostatic Hyperplasia (BPH)

Khurshid Ghani, MD, MS

**Harvard
Business
Review**



Spotlight
Article

Managing People

The Business Case For Curiosity

by Francesca Gino

Background

- At December 2023 MUSIC Strategic Retreat and in follow-up conversations with current MUSIC members, general urology and specifically BPH was noted as a key area of interest
- BPH is a common condition and the management as a urologic condition is variable and costly
 - 100,000+ BPH-related procedures performed annually
 - > 12 treatment options!
 - Nearly \$4 Billion spent on the management of BPH per year

Why a Practical Approach?



Development Process

- MUSIC providers interested in serving in a program leadership role invited to submit a BPH Program Letter of Intent (LOI) describing their general aims
- Proposed projects outlined at today's collaborative-wide meeting
- Formal project proposal detailing the project and initiative including patient care benefits and potential ROI submitted by November 18th
- Proposals reviewed by Executive Committee and Coordinating Center
- Decision on successful proposal/leadership team by end of 2024
- **BPH summit meeting** to be hosted Q1/Q2 in 2025
- Targeting BPH program pilot go-live in Q3 – Q4 2025

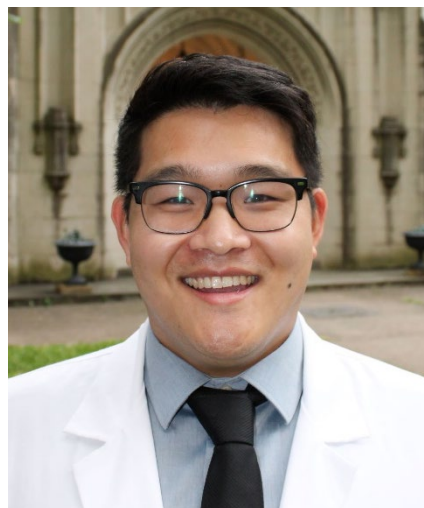
BPH Letters of Intent (LOIs) Received



Jay Lonsway, MD

Western Michigan Urological Associates

- Revise or create new **instruments to adequately assess patient feelings of anxiety and depression** post treatment
- **PROs** to compare multiple surgical intervention outcomes
- Development of **quality measures** to accurately assess the quality of BPH care
- **Share decision making** including the creation of a decision aid



Wilson Sui, MD

Michigan Medicine Urology



John DiBianco, MD

University of Florida Urology

- Measure the variation in **ED visit rates following outpatient BPH surgery**
- Examine **post-surgical ED care as a driver of episode payments** for BPH
- Identify the **processes of care** employed by high-performing practices



Sabry Mansour, MD

Urology Specialists of MI

- **Preserve Bladder Health: Introduce MIST at an earlier stage** to prevent complications related to BPH
- **Evaluate the impact on Urinary Symptoms:** Address the limited efficacy of current medical management strategies
- **Enhance Diagnostic Accuracy:** Utilize advanced diagnostic modalities to prevent unnecessary delays in treatment

We Want to Hear from YOU

- Break out individual tables to discuss what you see as important quality improvement opportunities as it relates to BPH
- Where is the unmet need?
- What could we do?
- Where can we have IMPACT?

Breakout Session: 15 Minutes

Report Out: 15 Minutes

Next Steps

- We will record the feedback received today as we move toward standing up this new program
- We will communicate the selected proposal including the leadership team and specific aims by the end of the year
- Additional thoughts or feedback as it relates to BPH between now and then, please email Susan @ slinsell@med.umich.edu



Improving Ureteroscopy Practice: Lessons Learned from an Ongoing Stent Omission Clinical Trial

Casey Dauw, MD

Khurshid Ghani, MD, MS



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

- Casey Dauw
 - Boston Scientific Corporation, paid consultant
 - Cook Medical, Inc., paid consultant
 - Ethicon, paid consultant
 - Karl Storz Endoscopy, paid consultant
- Khurshid Ghani
 - Ambu, paid consultant, royalties/patent beneficiary
 - Boston Scientific Corporation, consulting fee, grant or research support
 - Coloplast, grant or research support

Part 1: WHY?

1cm LP stone treated with URS



**AUA guidelines
recommend stent
omission after
uncomplicated ureteroscopy,
but 80% of patients get
stented**



**WHY are
urologists
STILL
STENTING**

The Perspective of a Urologist

A day in the life of a
urologist: stents are your
friend

**Patient
Pre-op**

Strategies to Facilitate Stent Omission: Counselling –



THE JOURNAL
of UROLOGY®

Official Journal of the American Urological Association

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§

Doc, I
really do
not
want to be
stented!

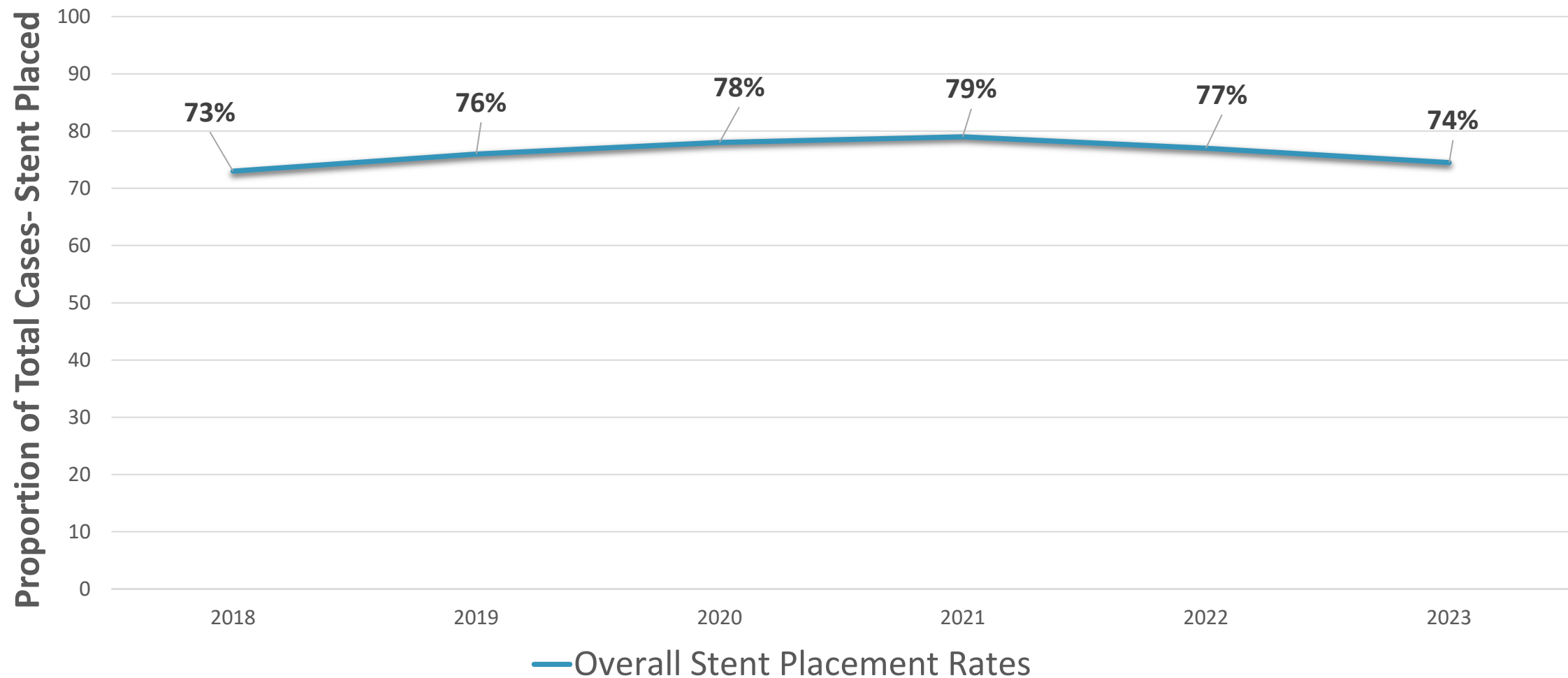


Well, **0.5%** of
cases where a
stent is omitted
will require urgent
intervention
postoperatively.

Despite Our Efforts, Stenting Rates Remain Unchanged —



Collaborative Wide Stent Placement Rates
(2018 – 2023)



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

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

2019 Cochrane Review

- Stenting may **slightly** reduce the number of unplanned return visits
- “But we are very uncertain of this finding”

“Given the importance of this question, higher-quality and sufficiently large trials are needed to better inform decision-making.”

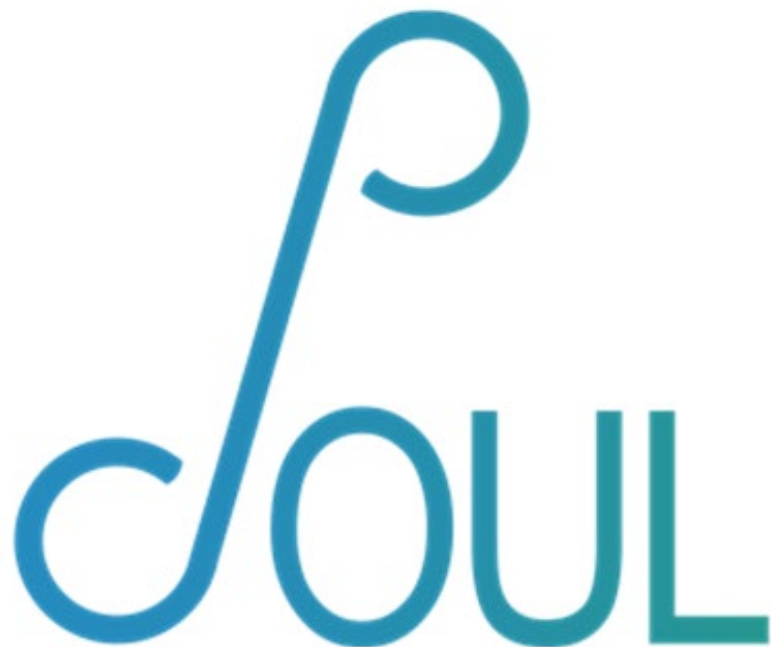
We Asked Patients



What is the SOUL MUSIC study?

Hypothesis

Stent omission (vs placement) is associated with improvements in patient reported outcomes (PROs) and 30-day healthcare utilization after ureteroscopy.



Inclusion Criteria

- **Small** stones <1cm
- **Not** pre-stented
- **Uncomplicated** URS

Stent Omission after
Ureteroscopy and Lithotripsy

Co-Primary Endpoints

- PROMIS Pain Interference at 7-10 days
- Unplanned healthcare utilization within 30 days

Secondary Endpoints

- Compare/assess the following between treatment arms:
 - Healthcare utilization at each level of composite score
 - Pain and health-related quality of life.
 - Urinary symptoms
 - Treatment satisfaction
 - Time off work for patients and caregivers

Combined Randomized & Observational Design

Study
Population

We hypothesize that 2/3 patients will decline

Randomization

Uncomplicated*

Complicated

Stent
Omission

Stent
Placement

Stent
Omission

Stent
Placement

Aim 1: Randomized Cohort

Refuse
Randomization

Uncomplicated*

Complicated

Stent
Omission

Stent
Placement

Stent
Omission

Stent
Placement

Aim 2: Observational Cohort

SOUL is Unique

There are **very few** federally funded kidney stone surgical trials...

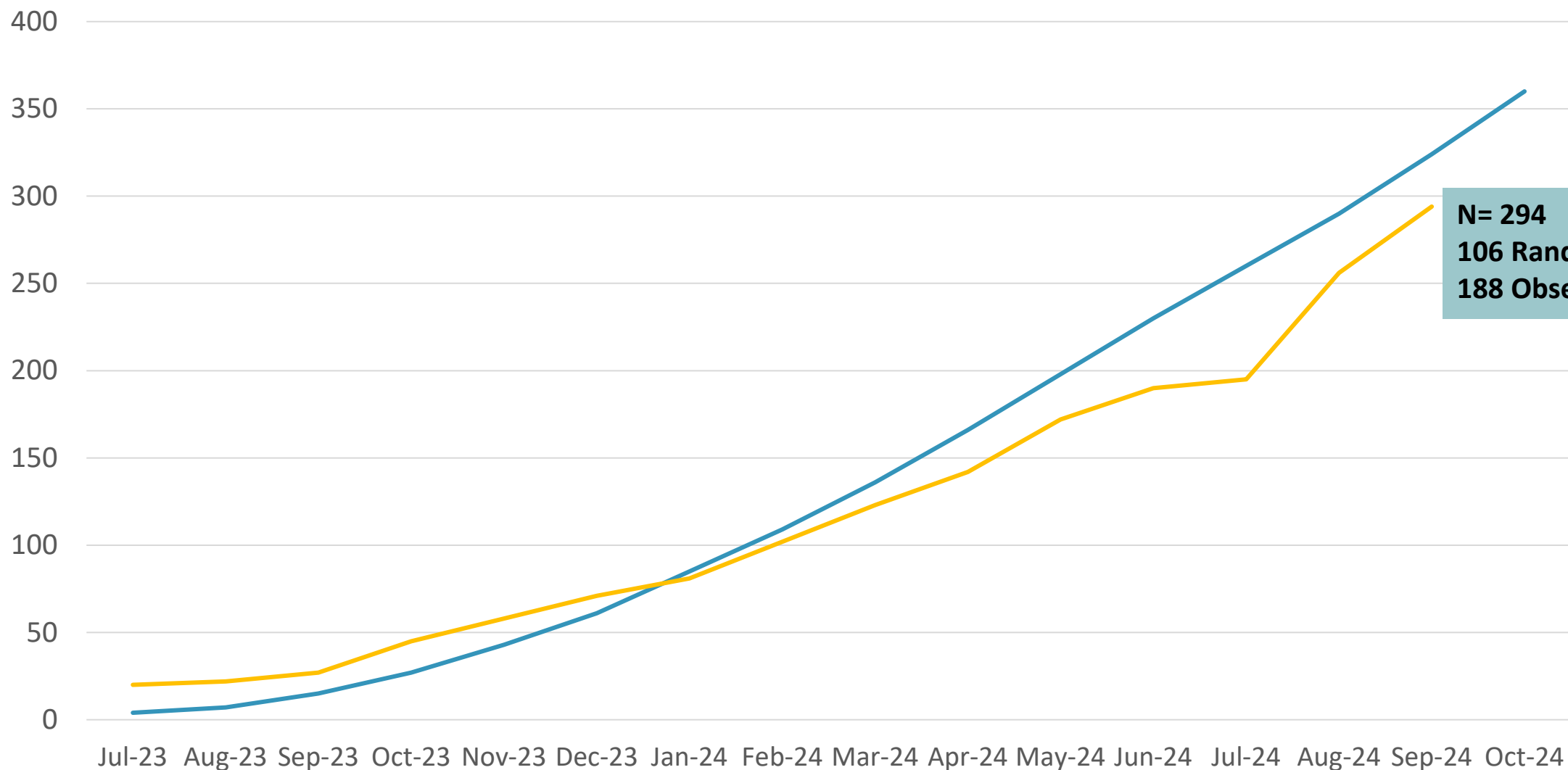


“Successful completion of this scientifically rigorous study will likely positively impact the field of urology.”
– Peer reviewer

Part 2: Current State of the SOUL Trial

Combined Cohort: Cumulative Patient Enrollment

N

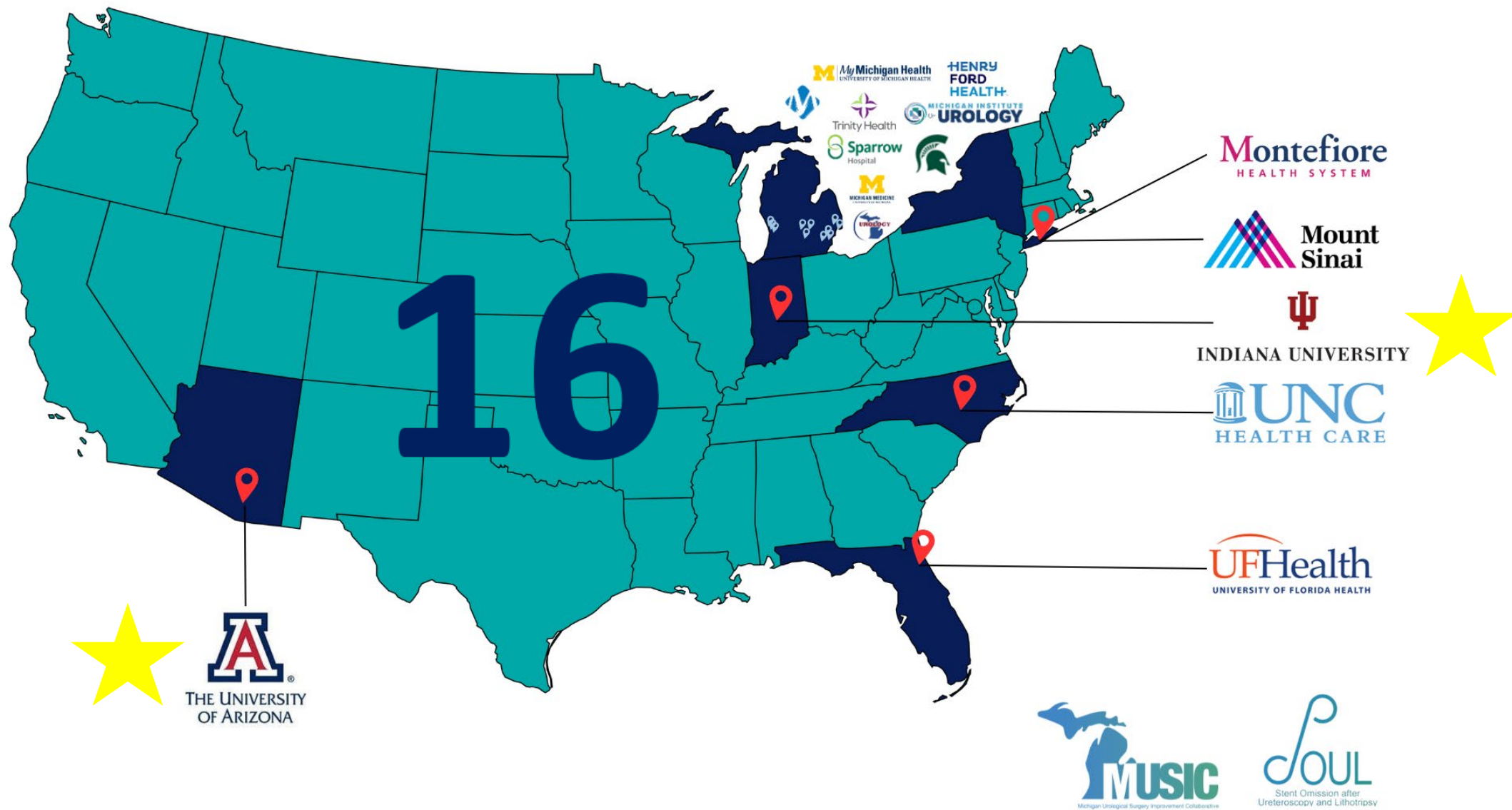


N= 294
106 Randomized
188 Observational

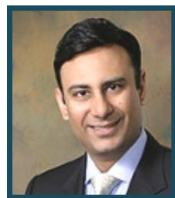
—Target- Cumulative

—Actual Number Enrolled- Cumulative

2 New Sites to Come Onboard



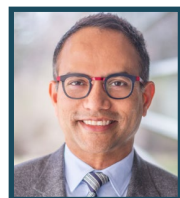
Thank You for Participating!



Dr. Mantu Gupta



Dr. Casey Dauw



Dr. Khurshid Ghani



Dr. Karla Witzke



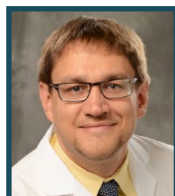
Dr. Jeremy Konheim



Dr. William Roberts



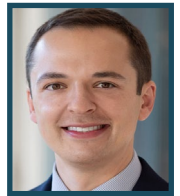
Dr. Sapan Ambani



Dr. Andre King



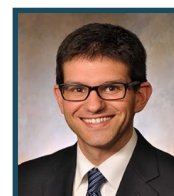
Dr. Eduardo Kleer



Dr. Dima Raskolnikov



Dr. William Atallah



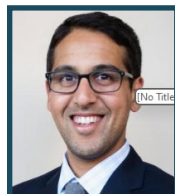
Dr. Russell Becker



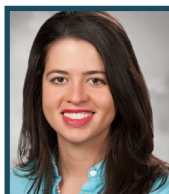
Dr. Henry Rosevear



Dr. Alexander Small



Dr. Neil Pugashetti



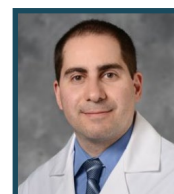
Dr. Elena Gimenez



Dr. David Wenzler



Dr. Kara Watts



Dr. Joseph Haddad



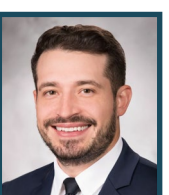
Dr. Christina Fox



Dr. Anthony Bonzagni



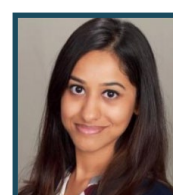
Dr. Arvin George



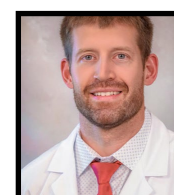
Dr. Andrew Schwinn



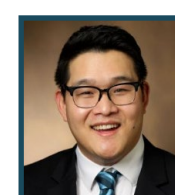
Dr. Davis Virakasit



Dr. Suprita Krishna



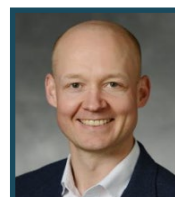
Dr. Roy Miller



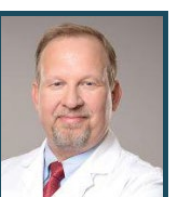
Dr. Wilson Sui



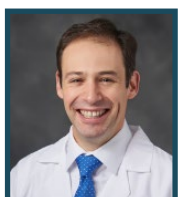
Dr. Dave Friedlander



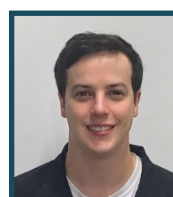
Dr. Kristian Stensland



Dr. Laris Galejs



Dr. David Leavitt



Dr. Andrew Higgins

Part 3:

What have we learned so far?

What Have We Learned so Far?



Perspectives on stent omission: Patients and Physicians



Incidence of negative ureteroscopy



Preop Alpha-Blockers in ureteroscopy

Guest Surgeons



Dr. Henry Rosevear, MD



Dr. Eduardo Kleer, MD



Integrated Health
Associates

Perspectives on Stent Omission

Panel Discussion

Understanding the Surgeon Perspective

Physicians acknowledged that patients prefer stent omission, but **optimal kidney stone treatment outcomes were prioritized.**

Urologists often felt that stent use was necessary.

WHY?



Guideline ambiguity for stent omission



Day of the week



Real and perceived patient needs.



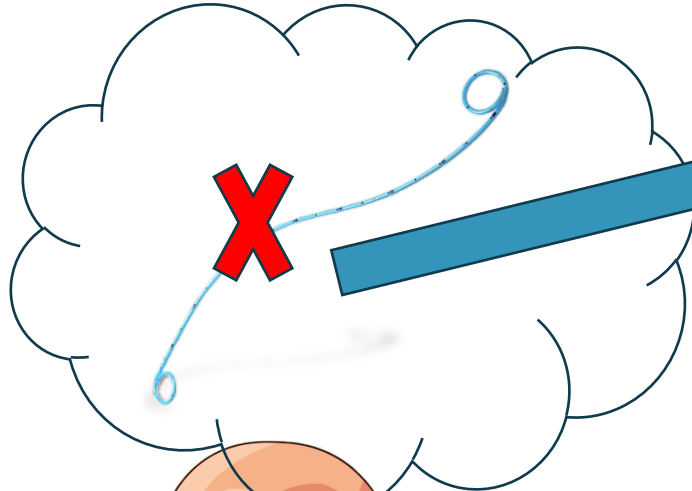
Deferring complications to a colleague.



Financial Incentives

Understanding the Patient Perspective

Prior experience led patients towards a preference of stent omission.



Patients **strongly preferred stent omission**



With stent omission, patients reported **less pain, faster recovery and return to work, and a higher quality of life**

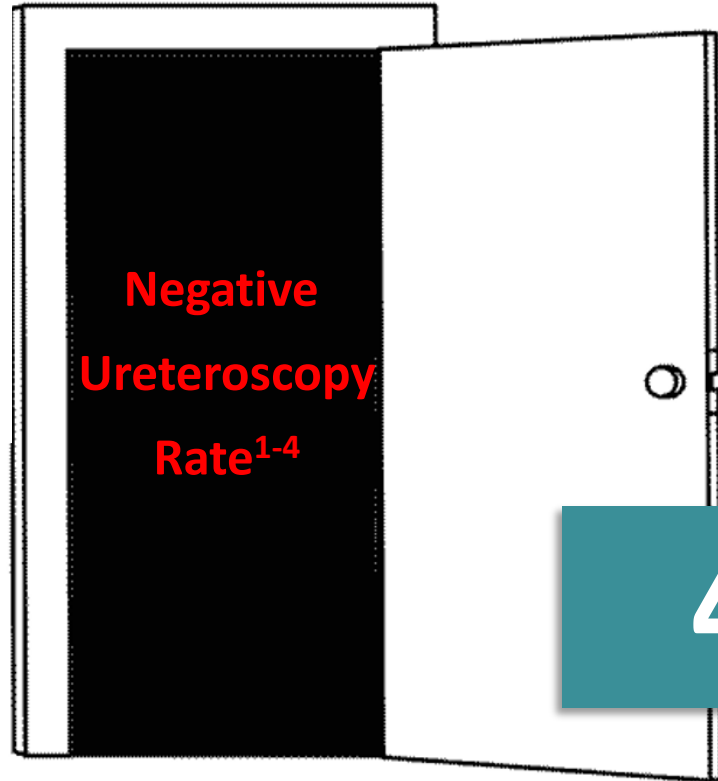
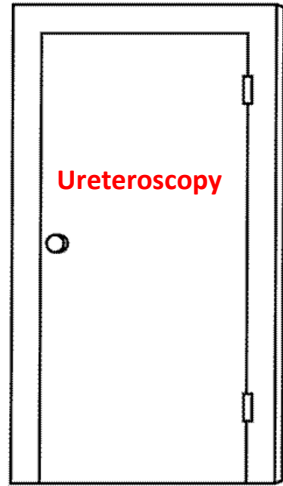


Patients emphasized the need for more **education, especially on stent removal.**

Negative Ureteroscopy

Panel Discussion

Negative Ureteroscopy: Identifying a Quality Gap



4-12%

Negative Ureteroscopy
Rate in SOUL

4%

1-Brodie AC, et al. (2022). Reducing the Rate of Negative Ureteroscopy: Predictive Factors and the Role of Preoperative Imaging. *Annals of the Royal College of Surgeons of England*

2- Katafigiotis I, et al. (2018). "Stoneless" or Negative Ureteroscopy: A Reality in the Endourologic Routine or Avoidable Source of Frustration? Estimating the Risk Factors for a Negative Ureteroscopy. *Journal of Endourology*

3- Lamberts, R. W., et al. (2017). Defining the Rate of Negative Ureteroscopy in the General Population Treated for Upper Tract Urinary Stone Disease. *Journal of Endourology*

4- Kreshover JE, et al. (2011). Predictors for Negative Ureteroscopy in the Management of Upper Urinary Tract Stone Disease. *Urology*

<7mm ureteral stones

Cost Implications of Negative Ureteroscopy



**THE JOURNAL
of UROLOGY®**

Official Journal of the American Urological Association

Variation in Spending around Surgical Episodes of Urinary Stone Disease: Findings from Michigan

Juan San Juan, Hechuan Hou, Khurshid R. Ghani,* James M. Dupreet and John M. Hollingsworth‡



~\$11,000

Each
Ureteroscopy Procedure



56

Cases in Michigan
Each Year



~\$600,000

Estimated Annual Cost

Reducing negative ureteroscopy cases can lead to substantial savings

Preoperative Alpha Blockers

Panel Discussion

BJUI COMPASS

Open Access

REVIEW |  Open Access |  

Effect of preoperative alpha-blockers on ureteroscopy outcomes: A meta-analysis of randomised trials

Naeem Bhojani, Ben H. Chew, Samir Bhattacharyya, Amy E. Krambeck, Khurshid R. Ghani, Larry E. Miller 

First published: 03 April 2024 | <https://doi.org/10.1002/bco2.358> | Citations: 1

7% Failed URS

Failed Ureteroscopy
Rate in SOUL

6%

Strategies to Avoid Failed URS: Preop Alpha Blockers



Effect of preoperative alpha-blockers on ureteroscopy outcomes: A meta-analysis of randomised trials

Naeem Bhojani, Ben H. Chew, Samir Bhattacharyya, Amy E. Krambeck, Khurshid R. Ghani, Larry E. Miller



Shorter procedure time



Reduced need for mechanical Ureteral Dilation



Fewer complications

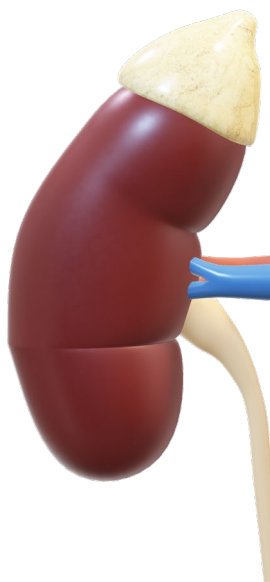


Decreased Access Failure Rate

Preoperative Alpha Blocker Use in MUSIC

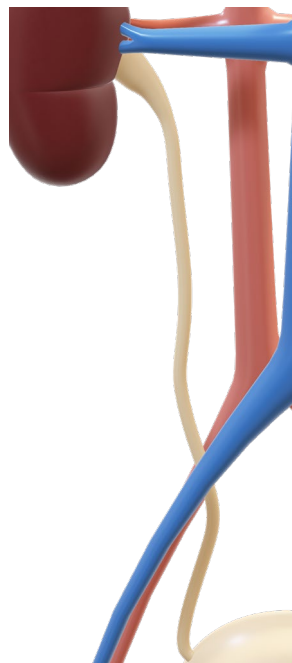
KIDNEY

35%



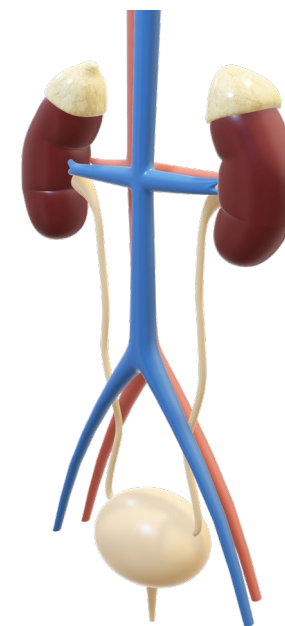
URETER/URETER + KIDNEY

45%



OVERALL

40%



Key Takeaways

MUSIC

Coordinating Center



Patient educational video/leaflet on stent removal strategies



Results from the ongoing SOUL Clinical Trial

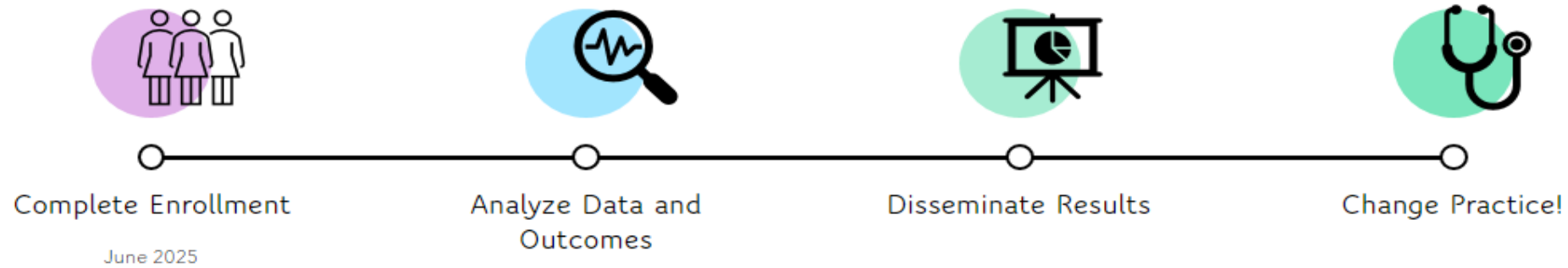


1. Consider imaging for small ureteral stones $\leq 7\text{mm}$
2. Preoperative alpha blockers
 - Reduce failed ureteroscopy
 - Facilitate stent omission?



Participating Practices/ Urologists

Potential Impact of SOUL MUSIC



Change Urological Norms

Routine stenting may not be necessary post-ureteroscopy.

Patient-Centric Approach

Improved patient outcomes by reducing unnecessary stent placements.

Practice Changing

Influencing future clinical guidelines based on trial results.

Long-Term Patient Benefits

Improving recovery and lowering complication rates for patients.



Closing Remarks

Tudor Borza, MD



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

Prostate Key Takeaways

- 1/3 of prostatectomy patients have cancer after surgery
- Persistently positive and biochemically recurrent cancer are different
- Risk adapted management and collaboration with radiation oncology are key

KIDNEY Key Takeaways

- Accurate clinical stage is needed to study oncologic outcomes
- 26% of MUSIC KIDNEY cases have incorrect clinical stage documented
- Clinicians should
 - Use cNx and cMx only for indeterminate lesions
 - Use cN0 and cM0 more frequently

ROCKS Key Takeaways

- SOUL clinical trial is underway in 13 centers throughout MUSIC
- Interviews have found that patients strongly prefer stent omission
- While physicians often feel stents are needed
- There is a ~4% negative URS rate in SOUL
- Consider re-imaging for small ureteral stones to reduce negative surgery
- Consider pre-op alpha-blockers to reduce failed URS AND facilitate stent omission

Save the Date

MUSIC Nationwide Webinar

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



**Wednesday
April 16th
6:00-7:45PM ET**

THANK YOU!

MUSIC Urologists, APPs, Abstractors,
Administrators, Patient Advocates,
BCBSM Value Partnerships Program

