## The BAUS Nephrectomy Audit Data Reflections From Across the Pond

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### Disclosure None

### **Objective**

Review BAUS data and provide reflection on Volumes
Complications
Trends

Utilizing reported national administrative data and institutional data



### 2013 BAUS Nephrectomy Audit Data

## 7591 Nephrectomies reported by 3341 consultants from 145 centers

(including 168 private patients from 48 consultants)

95% of data entered by hand versus imported 24.5% have one or more follow-up Patients 59% male Median age 65 (15 – 93)

- Median cases per consultant = 16 (1 118)
- Median per center = 39 (1 295)



### Trends in Partial and Radical Nephrectomy: An Analysis of Case Logs from Certifying Urologists

Stephen A. Poon,\* Jonathan L. Silberstein, Ling Y. Chen, Behfar Ehdaie, Philip H. Kim and Paul Russot

From the Urology Service, Department of Surgery and Department of Epidemiology and Biostatistics (LYC), Memorial Sloan-Kettering Cancer Center, New York, New York

THE JOURNAL OF UROLOGY®

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### ABU cert/recertification logs from 2002 – 2010 1 year of logs represent ~10% of ABU 3852 non-pediatric urologists submitted logs 82% general urologists 63% private practice only 48384 RN and PN cases Did not include NU, simple Nx Median (IQR) number of cases: 8/year (4-16) 25% did fewer than 4 cases/year

ABU has ~11,400 certified urologists with ~1300 listed as retired\* mayo \*Personal communication from S. Nakada



### Hospital Volume is a Determinant of Postoperative Complications, Blood Transfusion and Length of Stay After Radical or Partial Nephrectomy

Maxine Sun,\*,† Marco Bianchi,† Quoc-Dien Trinh, Firas Abdollah, Jan Schmitges, Claudio Jeldres, Shahrokh F. Shariat, Markus Graefen, Francesco Montorsi, Paul Perrotte and Pierre I. Karakiewicz‡ THE JOURNAL OF UROLOGY® Vol. 187, 405-410, February 2012

Identified 48,172 patients with non-metastatic RCC treated with nephrectomy 1998-2007 from Nationwide Inpatient Sample

Stratified into groups based on volume of center



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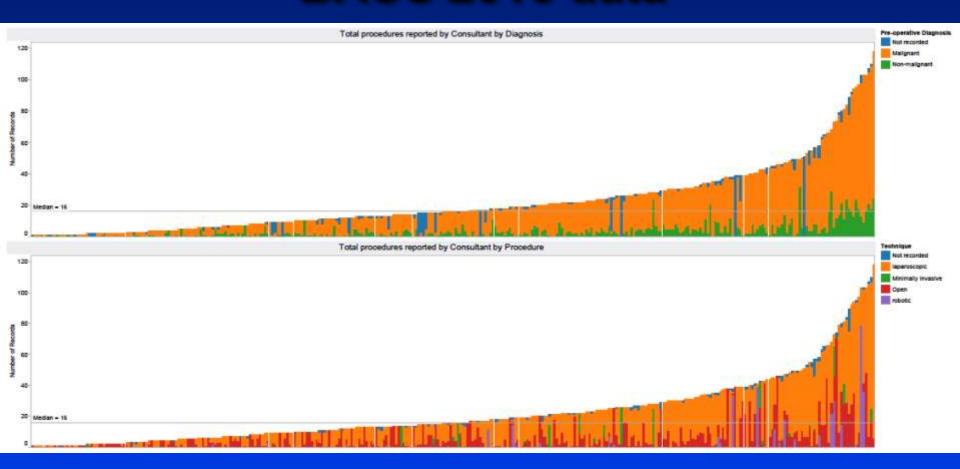
### 56% of cases done at a teaching institution

### Hospital volume categorization:

Low1-51/3 of casesIntermediate6-151/3 of casesHigh16 or more1/3 of cases

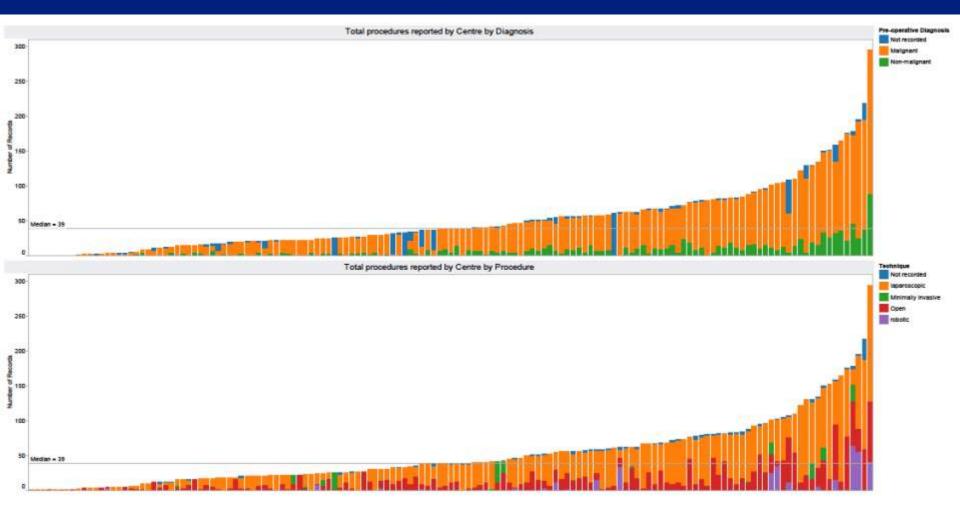
Only 1.3% of cases done at a center that does more than 100/year

### BAUS 2013 data





### BAUS 2013 data





### **BAUS vs North America**

	Case Loads		
	Surgeon	Center	
<b>BAUS 2012</b>	14	35	
<b>BAUS 2013</b>	16	39*	
North America	8	~10	

"It is hoped that this is the result of increasing subspecialisation"

Does volume translate to better care?

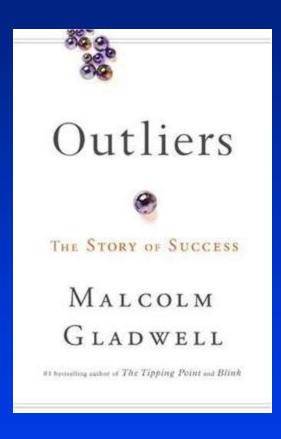


### **Practice makes perfect?**





### **Practice makes perfect?**





10,000 hours
Based on Ericsson
et al, 1993
Swedish
psychologists
asked musicians
to estimate
amount of time
in practice





### Deliberate Practice and Performance in Music, Games, Sports, Education, and Professions: A Meta-Analysis







Brooke N. Macnamara<sup>1</sup>, David Z. Hambrick<sup>2</sup>, and Frederick L. Oswald<sup>3</sup>

<sup>1</sup>Princeton University; <sup>2</sup>Michigan State University; and <sup>3</sup>Rice University

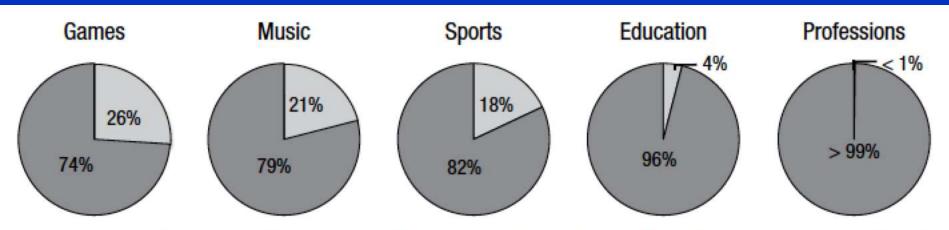


Fig. 3. Percentage of variance in performance explained (light gray) and not explained (dark gray) by deliberate practice within each domain studied. Percentage of variance explained is equal to  $r^2 \times 100$ .

#### SPECIAL ARTICLE

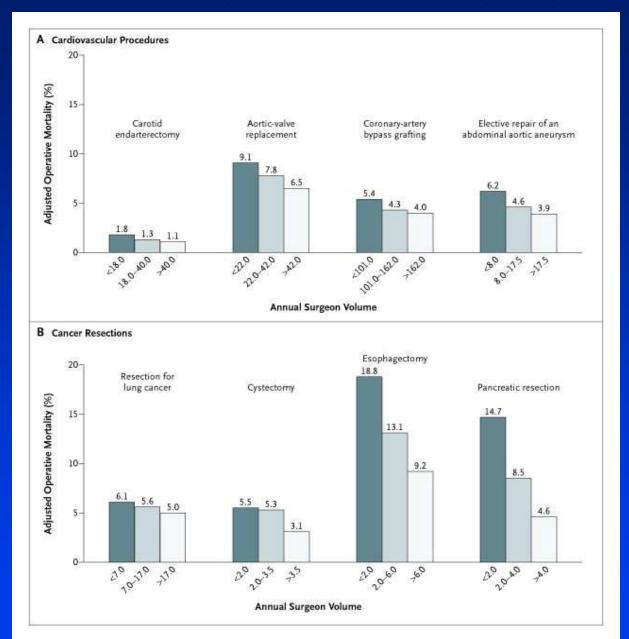
## Surgeon Volume and Operative Mortality in the United States

John D. Birkmeyer, M.D., Therese A. Stukel, Ph.D., Andrea E. Siewers, M.P.H.,
Philip P. Goodney, M.D., David E. Wennberg, M.D., M.P.H.,
and F. Lee Lucas, Ph.D.

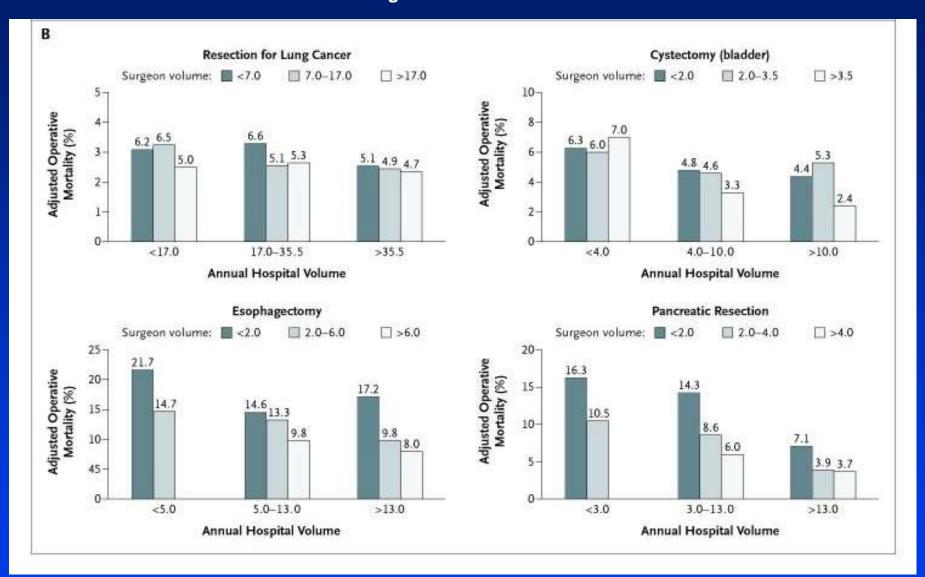
# Medicare claims data 474,108 patients Examined mortality stratified by surgeon and hospital volume



### **Adjusted Operative Mortality among Medicare Patients According to Surgeon-Volume Stratum**



### Adjusted Operative Mortality among Medicare Patients According to Hospital-Volume Stratum and Surgeon-Volume Stratum





#### SPECIAL ARTICLE

### Surgeon Volume and Operative Mortality in the United States

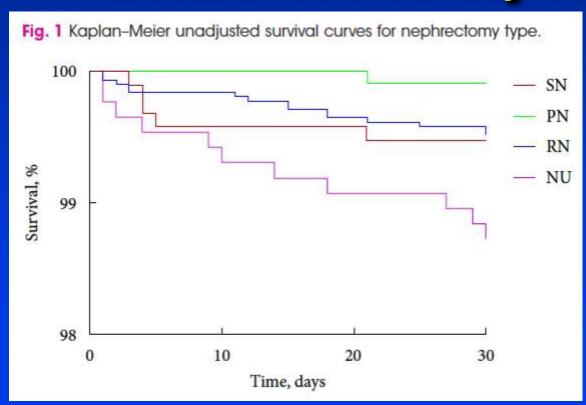
Table 2. Adjusted Odds Ratio fo	r Operative Death	, According to Sur	geon Volume and I	Hospital Volume.*					
Procedure	Odds of Operative Death with Low Volume as Compared with High Volume								
	Surgeon Volume	Surgeon Volume, Adjusted for Hospital Volume	Proportion of Effect of Surgeon Volume Attributable to Hospital Volume	Hospital Volume	Hospital Volume, Adjusted for Surgeon Volume	Proportion of Effect of Hospital Volume Attributable to Surgeon Volume			
	adjusted odds	ratio (95% CI)	%	adjusted odds	%				
Cardiovascular procedures									
Carotid endarterectomy	1.64 (1.47-1.84)	1.70 (1.51-1.91)	0	1.04 (0.92-1.17)	0.89 (0.79-1.01)	<b>-</b> †			
Aortic-valve replacement	1.44 (1.29-1.59)	1.45 (1.30-1.63)	0	1.13 (1.00-1.28)	0.97 (0.86-1.10)	100			
Coronary-artery bypass grafting	1.36 (1.28-1.45)	1.33 (1.25-1.42)	8	1.26 (1.15-1.37)	1.13 (1.03-1.24)	49			
Elective repair of an abdominal aortic aneurysm	1.65 (1.46–1.86)	1.55 (1.36–1.77)	15	1.40 (1.23–1.59)	1.17 (1.02–1.35)	57			
Cancer resections									
Resection for lung cancer	1.24 (1.08-1.44)	1.16 (0.99-1.36)	34	1.29 (1.11-1.51)	1.22 (1.04-1.44)	24			
Cystectomy of the bladder	1.83 (1.37-2.45)	1.45 (1.03-2.04)	46	2.06 (1.50-2.83)	1.65 (1.14-2.39)	39			
Esophagectomy	2.30 (1.54-3.42)	1.80 (1.13-2.87)	38	2.23 (1.47-3.39)	1.67 (1.02-2.73)	46			
Pancreatic resection	3.61 (2.44-5.33)	2.31 (1.43-3.72)	50	3.95 (2.55-6.11)	2.34 (1.38-3.99)	54			

# Perioperative outcomes of 6042 nephrectomies in 2012: surgeon-reported results in the UK from the British Association of Urological Surgeons (BAUS) nephrectomy database

John M. Henderson, Sarah Fowler\*, Adrian Joyce<sup>†</sup>, Andrew Dickinson<sup>‡</sup> and Francis X. Keeley on behalf of BAUS

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### 2012 BAUS 30 day survival data



Overall 30 day mortality was 0.55%



### **BAUS** mortality data vs US data

**Henderson et al BAUS mortality data:** 

0.1% PN

0.52% RN

Sun et al NIS data, RN + PN:

0.7% in hospital mortality

0.8% low volume, 0.6% "high volume"



# BAUS Volume and Mortality data conclusions

BAUS surgeons are relatively high volume when compared with colleagues across the pond

**BAUS** surgeons have low mortality rates

Higher volume and increased specialization would likely improve metrics further

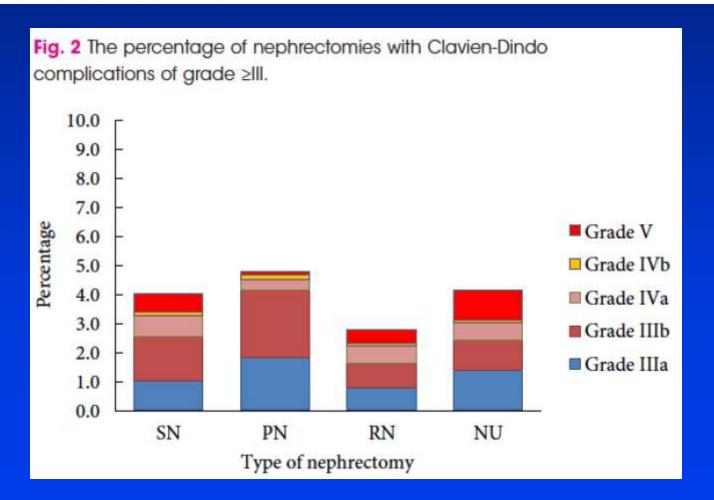




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### 2013 BAUS complication data

Clavien D	Dindo Grade	of Com	plication(	s)
-----------	-------------	--------	------------	----

					Techniqu	e (group)			
		Op	en	Minimally	invasive		corded	Grand	Total
69: Clavien-Dindo grade(s) of comp	Procedure	Number of Records	% of Total	Number of Records	% of Total	Number of Records	% of Total	Number of Records	70 OI TOTAL
Grade I	Radical	5/	11./%	121	16.2%			1/8	14.3%
BALOPICATION	Simple Partial	9	1.9%	31	4.1%			40	3.2%
	Partial	31	6.4% 1.9%	29 55	3.9%			60	4.8%
	Nephroureterectomy	9	1.9%	55	4.1% 3.9% 7.3% 0.1%			64	5.1% 0.1%
	Other		0.004	1	0.1%			1	0.1%
	Not recorded	0.7	0.2% 17.9%	1	0.1% 15.5% 2.9% 4.7% 8.1%	2	20.00/	200	0.2% 16.5% 3.3% 7.2% 6.2% 0.3%
Grade II	Radical	87	17.9%	116 22 35 61	15.5%	3	30.0%	206	16.5%
	Simple Partial	19	3.9%	22	2.9%		10.0%	41 90 77	3.3%
	Partial	54 16	2 20/	55	9.1%	1	10.0%	90	6 29/
	Nephroureterectomy Other	4	3.9% 11.1% 3.3% 0.8%	01	0.170			4	0.270
O 1- III-	Radical	16	3.3%	12	1.6%			28	2.2%
Grade Illa	Simple	10	0.3%	12 8 17 10	1.070			20	0.7%
	Partial	14	0.2% 2.9% 1.6%	17	1.1% 2.3% 1.3%			9 31 18	2.5%
	Nephroureterectomy	8	1.6%	10	1 3%			18	1.4%
	Other	1	0.2%	10				1	0.1%
Grade IIIb	Other Radical	8	0.2% 1.6%	26	3.5% 0.8% 2.5% 1.7%	- 1	10.0%	35	2.8%
Grade IIID	Simple	8 2 17	0.4%	26 6	0.8%		10.070	35 8 36 15	0.6% 2.9% 1.2%
	Simple Partial	17	0.4% 3.5%	19	2.5%			36	2.9%
1	Nephroureterectomy	2	0.4%	19 13	1.7%			15	1.2%
	Other	4	0.8%	1.5				4	0.3%
Grade IVa	Other Radical	15	0.8% 3.1%	9	1.2% 0.7%	1	10.0%	25 5 6 7	0.3% 2.0%
Ciddo iva	Simple	155		9 5 1	0.7%			5	0.4%
	Partial	5 2 3	1.0% 0.4%	1	0.1% 0.7%			6	0.4% 0.5%
	Nephroureterectomy	2	0.4%	5	0.7%				0.6%
good at the state of	Other	3	0.6%					3	0.6% 0.2%
Grade IVb	Radical	2	0.4%	3	0.4%			5	0.4%
5 E0074568/01/05	Simple Partial	2	22.20	1	0.1%			1	0.1%
	Partial	3	0.6%		0.00/			3	0.4% 0.1% 0.2% 0.2%
	Nephroureterectomy		0.00/	2 8	0.3% 1.1%		10.00	20 20 3	0.2%
Grade V (death)	Radical Simple Partial	11	2.3%	8	1.1%	1	10.0%	20	1.6% 0.2%
Social series and the series are series and the series and the series and the series are series and the series are series and the series and the series are series and th	Simple	1	0.2%	2	0.3%			3	0.2%
	Partial	1	0.2%	3	0.4%			1	0.1%
	Nephroureterectomy	2	0.276	3	0.470			2	0.3%
	Other Radical	40	0.476	67	0 00/	3	30.0%	110	0.1% 0.3% 0.2% 8.8%
Not recorded	Cimple	40	2.3% 0.2% 0.2% 0.2% 0.4% 8.2% 0.2% 6.2% 0.8%	13	8.9% 1.7% 2.8% 3.3% 0.1%	3	30.0%	110	1.1%
	Simple Partial	30	6.2%	21	2 8%			51	1.170
	Nephroureterectomy	4	0.2%	13 21 25	3 3%			14 51 29 5	4.1% 2.3% 0.4%
	Other	4	0.0%	23	0.1%			5	0.4%
	Not recorded	1	0.2%		0.170			ĭ	0.1%
Grand Total	Hotrecorded	486	100.0%	/49	100.0%	10	100.0%	1,245	100.0%
Orana rotai		700	100.070	1.40	100.070	10	100.070	1,240	100.070



### 2013 BAUS data, any complication

PN+RN MIS+open 717 complications

207 not recorded, therefore denominator is 7,384

= 9.7% any complication



### Hospital Volume is a Determinant of Postoperative Complications, Blood Transfusion and Length of Stay After Radical or Partial Nephrectomy

Maxine Sun,\*,† Marco Bianchi,† Quoc-Dien Trinh, Firas Abdollah, Jan Schmitges, Claudio Jeldres, Shahrokh F. Shariat, Markus Graefen, Francesco Montorsi, Paul Perrotte and Pierre I. Karakiewicz‡ THE JOURNAL OF UROLOGY<sup>®</sup> Vol. 187, 405-410, February 2012

1998 - 2007 NIS data

Any complication

Low volume	17%
Intermediate volume	16%
High volume	14%



# The relationship of postoperative complications with in-hospital outcomes and costs after renal surgery for kidney cancer

Simon P. Kim, Bradley C. Leibovich, Nilay D. Shah\*, Christopher J. Weight, Bijan J. Borah\*, Leona C. Han\*, Stephen A. Boorjian and R. Houston Thompson

2012 BJU International | 111, 580-588

49,983 RCC surgeries at 2037 hospitals between 2001 – 2008 from NIS

26% had postoperative complication

Associated with perioperative mortality and cost



### COMPLICATIONS OF RADICAL AND PARTIAL NEPHRECTOMY IN A LARGE CONTEMPORARY COHORT

ANDREW J. STEPHENSON,\* A. ARI HAKIMI, MARK E. SNYDER AND PAUL RUSSO†

J Urol 2004

### 1049 RN and PN for cortical renal tumors

### 180 patients (17%) had at least 1 complication

### Grade III – V complications in 32 patients (3%)

	Total	No. Complication Grade (%)						
	No. (%)	1	п	Ш	IV			
PN:	33 (9)	13 (4)	9 (2.5)	11 (3)	0			
Urinary fistula	20 (5.5)	16	0	4	0			
Perinephric abscess	4(1.1)	0	0	4	0			
Acute renal failure	5 (1.3)	0	3	2	0			
Retroperitoneal hemorrhage	3(0.8)	0	2	1	0			
Pneumothorax	4 (1.1)	0	4	0	0			
Totals	36	16	9	11	0			
RN:	21 (3)	7(1)	8 (1)	3 (0.4)	3 (0.4)			
Acute renal failure	3 (0.4)	0	3	0	0			
Retroperitoneal hemorrhage	1(0.1)	0	1	0	0			
Adjacent organ injury	7 (1)	4	0	0	3			
Bowel obstruction	4(0.6)	1	0	3	0			
Pneumothorax	6 (0.9)	2	4	0	0			
Totals	21	7	8	3	3			

### **Complication data summary**

	BAUS	NIS	<b>MSKCC</b>
Any	~10%	14-26%	17%
Grade 3-5	4%	???	3%

Many confounders in reporting complications
Surgeon self reporting bias
Referral center patient complexity
Incentives for reporting complications
Disincentives for reporting complications

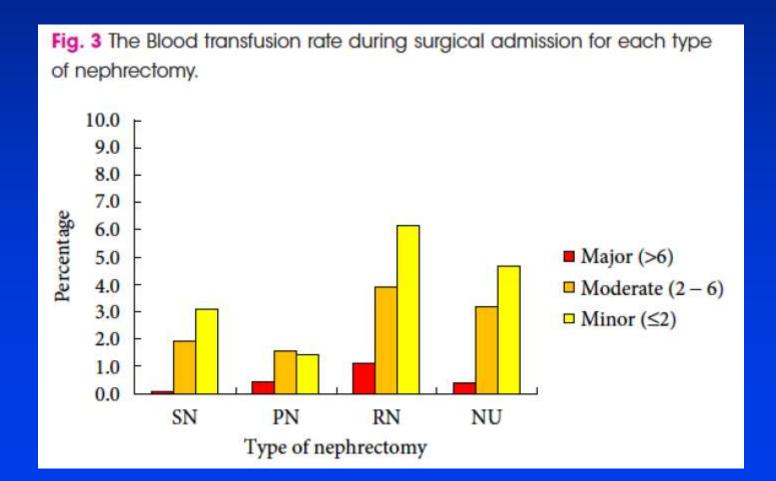
BAUS surgeons are providing safe care



# Perioperative outcomes of 6042 nephrectomies in 2012: surgeon-reported results in the UK from the British Association of Urological Surgeons (BAUS) nephrectomy database

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### **BAUS 2013 Transfusion Data**

### Blood Transfused by Procedure & Technique

84: Number of units of blood transfused related to sur

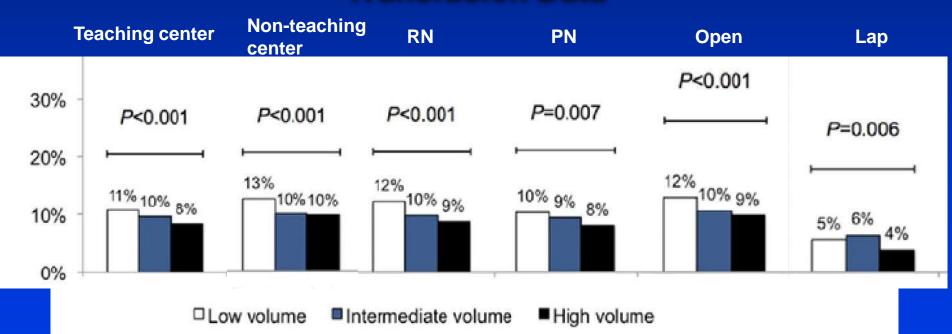
		N	lil	Minor	(<=2)	Moderat	e (>2 - 6)	Major	(>6)	Grand	i Total
Technique (group)	Procedure	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records	DALIMIN DEL DI	% of Total Number of Records	Number of Records	% of Total Number of Records	Number of Records	% of Total Number of Records
Open	Radical	597	70.3%	125	14.7%	97	11.4%	30	3.5%	849	100.0%
1000000000	Simple	98	83.8%	14	12.0%	3	2.6%	2	1.7%	117	100.0%
	Partial	540	93.8%	28	4.9%	8	1.4%			576	100.0%
	Nephroureterectomy	111	86.0%	15	11.6%	3	2.3%			129	100.0%
	Other	24	43.6%	15	27.3%	10	18.2%	6	10.9%	55	100.0%
	Not recorded	5	100.0%							5	100.0%
Minimally invasive	Radical	2,422	95.7%	74	2.9%	30	1.2%	6	0.2%	2,532	100.0%
	Simple	722	97.7%	11	1.5%	3	0.4%	3	0.4%	739	100.0%
	Partial	644	95.0%	20	2.9%	12	1.8%	2	0.3%	678	100.0%
	Nephroureterectomy	801	94.8%	34	4.0%	7	0.8%	3	0.4%	845	100.0%
	Other	31	96.9%	1	3.1%					32	100.0%
	Not recorded	20	95.2%	1	4.8%					21	100.0%
Not recorded	Radical	20	80.0%	3	12.0%	2	8.0%			25	100.0%
	Simple	2	100.0%							2	100.0%
	Partial	8	100.0%							8	100.0%
	Nephroureterectomy	8	88.9%	1	11.1%					9	100.0%
	Other	5	100.0%							5	100.0%
	Not recorded	1	100.0%							1	100.0%
Grand Total	The state of the s	6,059	91.4%	342	5.2%	175	2.6%	52	0.8%	6,628	100.0%



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### **Transfusion Data**





### **BAUS Transfusion data vs US data**

	2013 BAUS	Sun et al
Open RN + PN	11%	9 – 12%
RN open + lap	9%	9 – 12%
PN open + lap	6%	8 – 10%



### The impact of perioperative blood transfusion on survival after nephrectomy for non-metastatic renal cell carcinoma (RCC)

Brian J. Linder, R. Houston Thompson, Bradley C. Leibovich, John C. Cheville\*, Christine M. Lohse†, Dennis A. Gastineau‡ and Stephen A. Boorjian

BJU Int 2014; 114: 368-374

1990 – 2006 Mayo Nephrectomy Registry 2318 cases 825 PN 1493 RN

498 patients (21%) received transfusion

Transfusion associated with

Older Worse ECOG PS
Female Symptomatic
Higher grade Higher stage

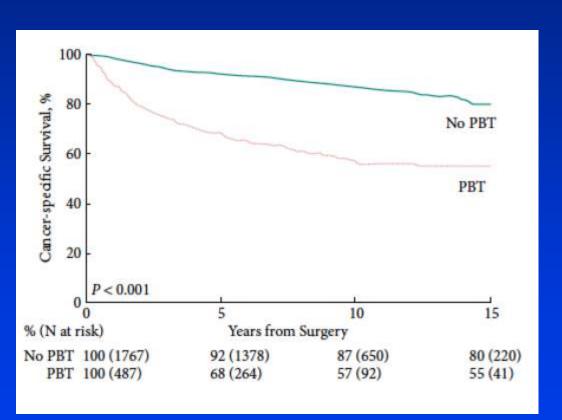
Larger tumors
Node positive
Higher stage



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BJU Int 2014; 114: 368-374



MVA controlling for clinical & pathologic features found transfusion assoc with death from any cause

HR 1.23, p = 0.02



### **BAUS Transfusion data conclusions**

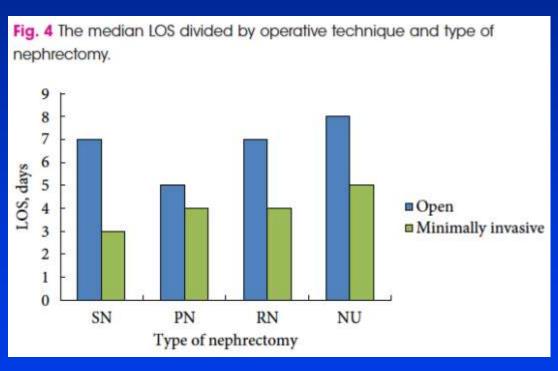
Transfusion rates similar to US and Mayo data

Efforts to reduce transfusion should be undertaken everywhere



### LOS

# Variability likely related to customs and health system differences



### Mayo mean LOS 2013

Robot PN	1.3 d
Lap RN/NU	1.7 d
Open PN	3.1 d
Open RN	<b>4.5</b> d



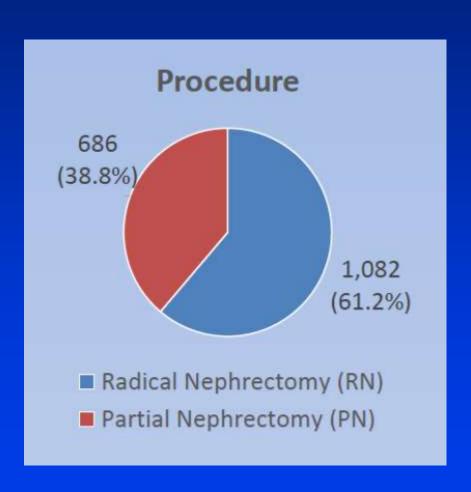


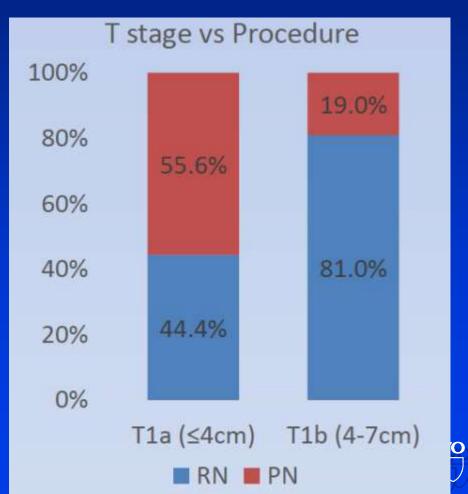


#### Partial versus Radical Nephrectomy for T1 renal tumours: An analysis from the British Association of Urological Surgeons (BAUS) Nephrectomy Audit

M. Hadjipavlou<sup>1</sup>, F. Khan<sup>1</sup>, S Fowler<sup>2</sup>, F.X. Keeley<sup>3</sup>, S. Sriprasad<sup>1</sup>
On behalf of BAUS Sections of Endourology & Oncology

Department of Unology, Dorent Valley Hospital, Dortford, UK; British Association of Unological Surgeons, London, UK; Bristol Unological Institute, Southmend Hospital, Bristol, UK





# **US NSS Utilization**

Miller et al, 2006

SEER review of 14,647 patients with tumor

≤7cm treated surgically

13,246 treated with RN

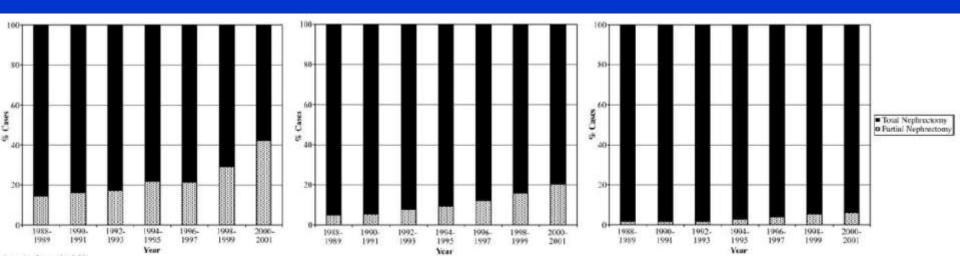
1401 (10%) treated with NSS

|--|

<2 cm 42%

2-4 cm 20%

4-7 cm 6%



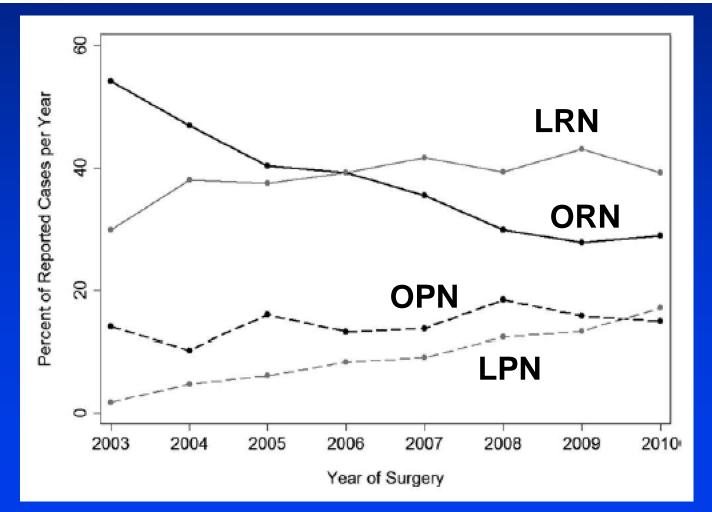
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From the Urology Service, Department of Surgery and Department of Epidemiology and Biostatistics (LYC), Memorial Sloan-Kettering Cancer Center, New York, New York

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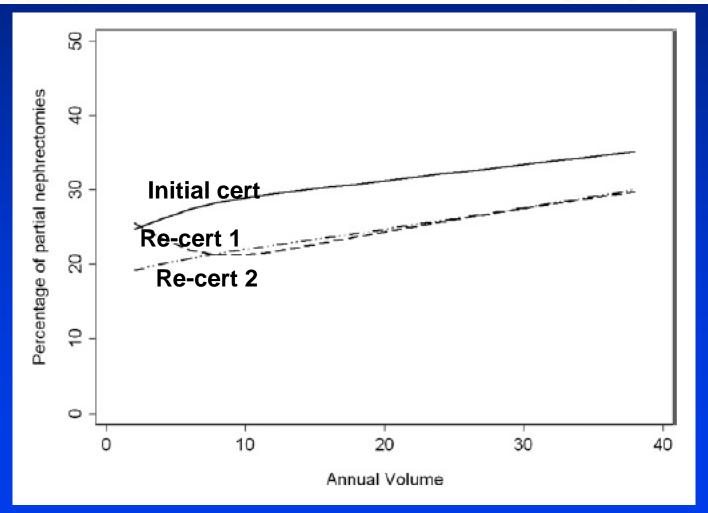
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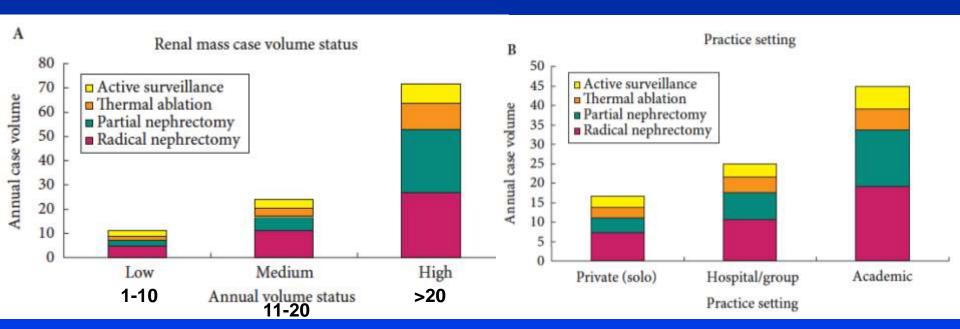
Vol. 190, 464-469, August 2013





# Practice-setting and surgeon characteristics heavily influence the decision to perform partial nephrectomy among American Urologic Association surgeons

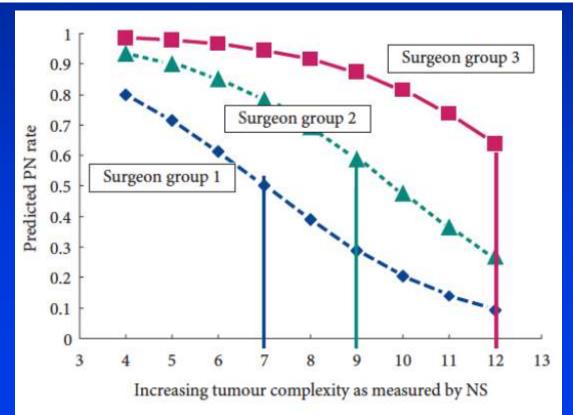
Christopher J. Weight, Paul L. Crispen\*, Rodney H. Breau<sup>†</sup>, Simon P. Kim, Christine M. Lohse<sup>‡</sup>, Stephen A. Boorjian, R. Houston Thompson and Bradley C. Leibovich 2012 BJU International | 111, 731–738





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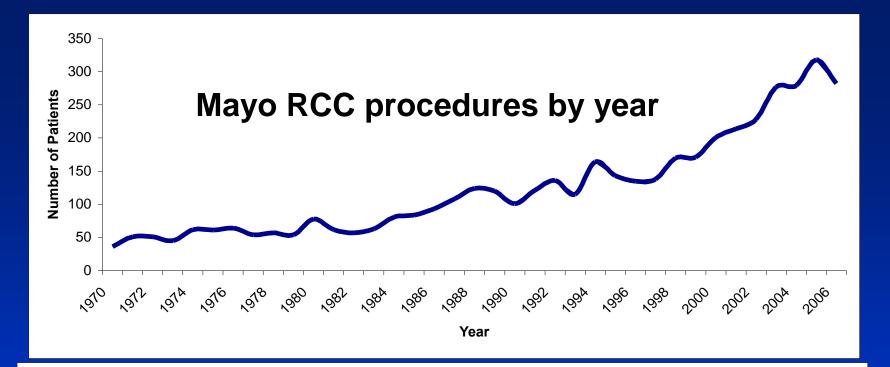
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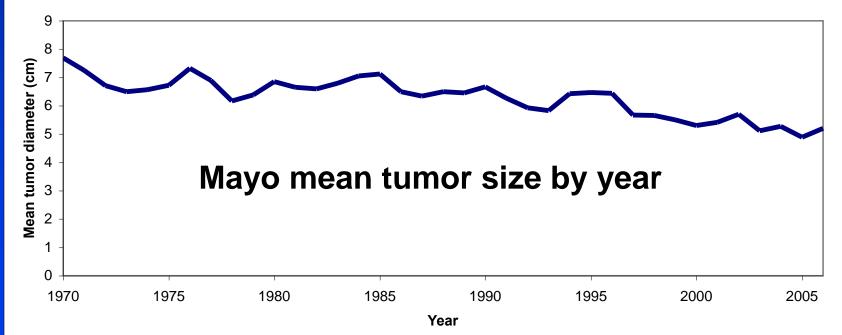


Group 1: Private practice, age of urologist >50, low volume

Group 2: Community practice, age 41-50, moderate volume

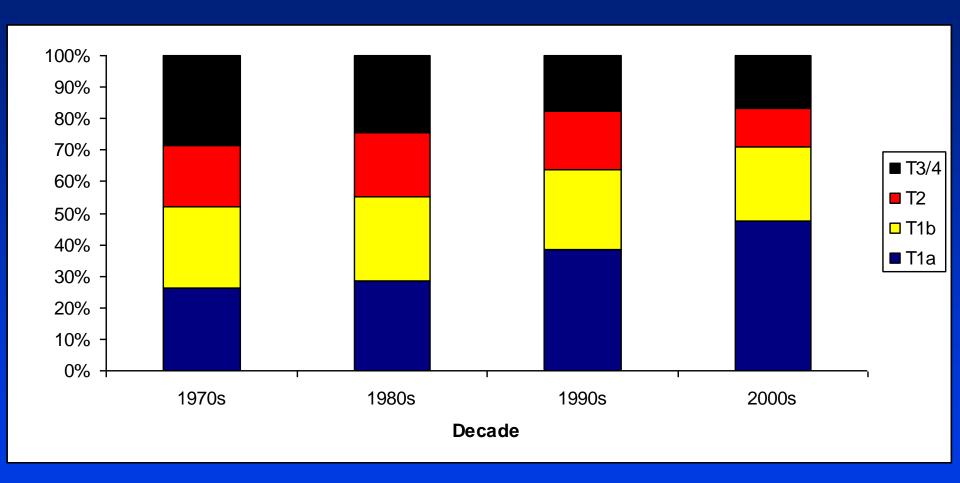
Group 3: Academic practice, surgeon ≤40, high volume may





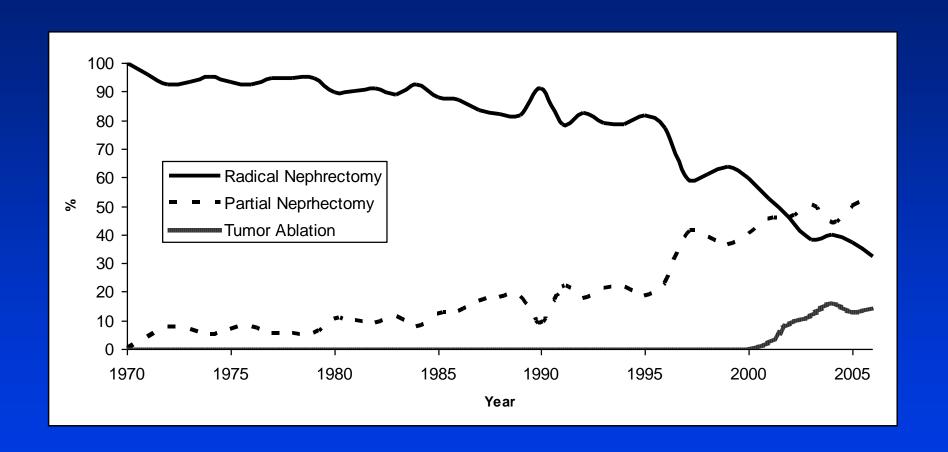


# Mayo RCC primary T stage by decade





# Mayo RCC treatment by year





A Prospective, Randomised EORTC Intergroup Phase 3 Study Comparing the Oncologic Outcome of Elective Nephron-Sparing Surgery and Radical Nephrectomy for Low-Stage Renal Cell

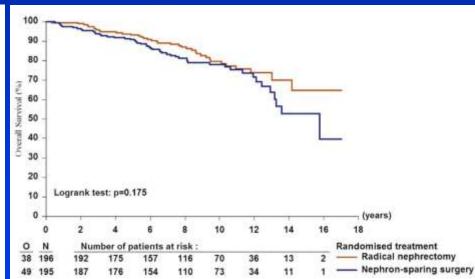
Hendrik Van Poppel<sup>a,\*</sup>, Luigi Da Pozzo<sup>b,1</sup>, Walter Albrecht<sup>c</sup>, Vsevolod Matveev<sup>d</sup>, Aldo Bono<sup>e</sup>, Andrzej Borkowski<sup>f</sup>, Marc Colombel<sup>g</sup>, Laurence Klotz<sup>h</sup>, Eila Skinner<sup>i</sup>, Thomas Keane<sup>j</sup>, Sandrine Marreaud<sup>k</sup>, Sandra Collette<sup>k</sup>, Richard Sylvester<sup>k</sup>

#### **OS Intent to Treat**

Carcinoma

# 100 90 80 70 70 40 30 20 10 Logrank test: p=0.032 0 2 4 6 8 10 12 14 16 18 0 N Number of patients at risk: 50 273 260 236 210 151 96 55 23 2 Radical nephrectomy 67 268 247 229 197 135 85 42 13 2 Nephron-sparing surgery

## OS Eligible Pts w/ RCC







# Perioperative Outcomes of Cytoreductive Nephrectomy in the UK in 2012

Jackson BL, Fowler S, Williams ST on behalf of BAUS Section of Oncology, in press BJU

#### 279 Cytoreductive nephrectomies

- 30 day mortality 1.79%
- 52 patients had PS of 2 or more
- 24% received transfusion
   Associated with number of metastatic sites, tumor size
- 22.6% had a complication
   Associated with performance status 2 or more
- 40 had preoperative targeted therapy Similar to others in tumor size, T stage, complications Greater number of tumor thrombus

#### ORIGINAL ARTICLE - UROLOGIC ONCOLOGY

#### Mortality and Morbidity After Cytoreductive Nephrectomy for Metastatic Renal Cell Carcinoma: A Population-Based Study

Firas Abdollah, MD<sup>1,2</sup>, Maxine Sun, BSc<sup>1</sup>, Rodolphe Thuret, MD<sup>1,3</sup>, Jan Schmitges, MD<sup>1,4</sup>, Shahrokh F. Shariat, MD<sup>5</sup>, Paul Perrotte, MD<sup>1,6</sup>, Francesco Montorsi, MD<sup>2</sup>, and Pierre I. Karakiewicz, MD<sup>1,6</sup>

### 17,688 Florida nephrectomies

1063 (6%) were cytoreductive In hospital mortality 2.4% Complications 26.5% Transfusion 24.3% Each metric associated with:

more advanced age comorbidities number of secondary surgical procedures



# Pre-surgical Targeted Rx Does Not Increase Peri-operative Complications

N = 44 with median duration of Targeted Rx of 6-7 months

Complication Type	Odds Ratio	p	
All complications	0.560	0.145	
Re-exploration	1.100	0.993	
Re-admission	1.000	0.997	
Thromboembolic	1.200	0.990	
Cardiovascular	1.115	0.607	
Pulmonary	0.765	0.447	
Gastrointestinal	1.154	1.000	
Infectious	1.009	0.995	
Incision related	0.955	0.880	



available at www.sciencedirect.com journal homepage: www.europeanurology.com



Platinum Priority - Kidney Cancer Editorial by Axel Bex and Noel Clarke on pp. 919-920 of this issue



# The Impact of Targeted Molecular Therapies on the Level of Renal Cell Carcinoma Vena Caval Tumor Thrombus

Nicholas G. Cost<sup>a</sup>, Scott E. Delacroix Jr.<sup>b</sup>, Joshua P. Sleeper <sup>a</sup>, Paul J. Smith <sup>a</sup>, Ramy F. Youssef<sup>a</sup>, Brian F. Chapin <sup>b</sup>, Jose A. Karam <sup>b</sup>, Stephen Culp <sup>b</sup>, E. Jason Abel <sup>b</sup>, James Brugarolas <sup>c</sup>, Ganesh V. Raj <sup>a</sup>, Arthur I. Sagalowsky <sup>a</sup>, Christopher G. Wood <sup>b</sup>, Vitaly Margulis <sup>a,\*</sup>

#### 25 pts with RCC + IVC VTT in situ received targeted Rx

Therapy: sunitinib: 12 bevacizumab: 9

temsirolimus: 3 sorafenib: 1

VTT level:	Ш	III	<u>IV</u>
	18	5	2



# Targeted Therapy and in situ VTT

Cost et al, Eur Urol 2010

Number of cases with change in tumor thrombus

	<u>Level</u>	<u>Diameter</u>			
Increased	1	8			
Stable	21	2			
Decreased	<b>3</b> *	11			

\*1 each Level IV-III, level III-II, level II-0

Regression limited to sunitinib treated patients









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EDUCATION

RESEARCH

ADVOCACY

INTERNATIONAL

PRACTICE RESOURCES

**Guidelines & Policies** 

Coding and Reimbursement

Conferences and Meetings

Practice Managers' Network

Patient Safety & Quality of Care

AUA Quality Registry (AQUA)

Accreditations and Reporting

Urology Care Foundation Patient Education





AUA QUALITY REGISTRY (AQUA)

Overview

Timeline

Participation

Fact Sheet

FAQ5

As part of its ongoing commitment to improving the quality of care for patients with urologic disease, the AUA recently announced it is developing the AUA AQUA Registry.

The AQUA Registry will be the only **specialty-wide**, **urologic disease** focused **registry** in the United States and will be designed to measure and report health care quality and patient outcomes. Through the aggregation and organization of both clinician- and patient-reported data on diagnostic and therapeutic interventions, clinical and patient-reported outcomes and resource utilization, AQUA will provide the urologic community with a definitive resource for informing and advancing urology within the United States.

Starting with prostate cancer, the AQUA Registry will gradually expand to include other urological conditions.





ABOUT US



NSQIP

Nine of the top 10 U.S. News and World Reportranked hospitals use ACS NSQIP to improve surgical quality.



Guidelines

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**Program Specifics** 

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**Participants** 

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Newsroom

Welcome to ACS NSQIP

Today's healthcare environment demands more than ever of surgeons and the hospitals they work in. Payors, including Medicare, increasingly refuse to pay for treating complications deemed preventable, such as surgical site infections. A growing movement aims to tie reimbursements to outcomes — and publicly report the results. At the same time, hospitals face staffing shortages and financial pressures, trying to do more with less Discover what hundreds of hospitals across America already know. A surgical quality improvement program so effective that EACH YEAR a hospital uses it, on average, it has the opportunity to:

- Prevent 250-500 complications
- Save 12-36 lives
- Reduce costs by millions of dollars

Discover the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP®). ACS NSQIP is the leading nationally validated, risk-adjusted, outcomes-based program to measure and improve the quality of surgical care in the private sector. ACS NSQIP has the tools, training, customization options and, most importantly, data, to keep your hospital ahead of the curve.

ACS NSQIP®

2014 ACS NSOIP®

National Conference

REDUCING SSI RATES BY INTRODUCING THE CLEAN

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LATEST ACS NSQIP NEWS

04.2.14 New Study Shows Florida's Participation in Innovative ACS NSQIP Surgical Collaborative





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Improving outcomes for

#### **UROLOGICAL CARE**





#### **Program Overview**

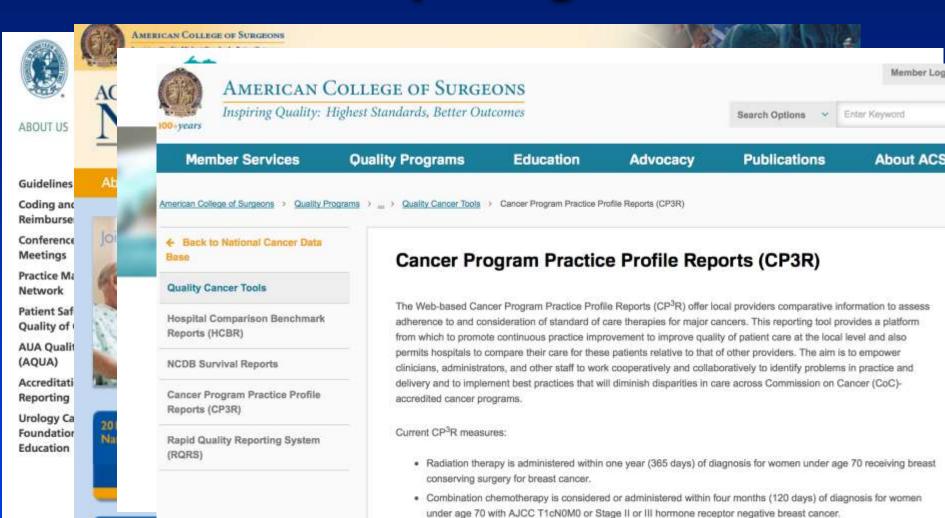
The overall aims of the collaborative include, among others, evaluating and improving patterns of care in the radiographic staging of men with newly diagnosed prostate cancer, reducing biopsy-related complications and assessing repeat biopsy patterns, improving patient outcomes after radical prostatectomy, enhancing patient-centered decision making among men considering local therapy for early-stage prostate cancer, and understanding and reducing variation in the use of androgen deprivation therapy. Participating practices submit data to a clinical registry maintained by the MUSIC Coordinating Center and tri-annual consortium-wide meetings are held each year to discuss data, review risk-adjusted measures of processes of care and patient outcomes, and identify strategies and best practices for quality improvement. MUSIC is managed by the MUSIC Coordinating Center, which is housed at the University of Michigan, and funding is provided by Blue Cross Blue Shield of Michigan (BCBSM). BCBSM's Value Partnerships program provides clinical and executive support for all CQI programs. To learn more about Value Partnerships, visit www.valuepartnerships.com.

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REDUCING SSI RATES BY INTRODUCING THE CLEAN

04.2.14 New Study Shows Florida's Participation in Innovative ACS NSQIP Surgical Collaborative





 Tamoxifen or third generation aromatase inhibitor is considered or administered within one year (365 days) of diagnosis for women with AJCC T1cN0M0 or Stage II or III hormone receptor positive breast cancer.

breast cancer for women with ≥ 4 positive regional lymph nodes.

Radiation therapy is considered or administered following any mastectomy within 1 year (365 days) of diagnosis of

ACS NSO





Rank	Hospital	Points*	High-ranking specialties*
1	Mayo Clinic, Rochester, Minnesota	29	15
2	Massachusetts General Hospital, Boston	28	15
3	Johns Hopkins Hospital, Baltimore	26	15
4	Cleveland Clinic	26	14
5	UCLA Medical Center, Los Angeles	23	15
6	New York-Presbyterian University Hospital of Columbia and Cornell, New York	22	12
7	Hospitals of the University of Pennsylvania-Penn Presbyterian, Philadelphia	19	11
8	UCSF Medical Center, San Francisco	17	10
9	Brigham and Women's Hospital, Boston	15	10
10	Northwestern Memorial Hospital, Chicago	13	10
11	University of Washington Medical Center, Seattle	12	9
12 (tie)	Cedars-Sinai Medical Center, Los Angeles	11	8
12 (tie)	UPMC-University of Pittsburgh Medical Center	11	8
14	Duke University Hospital, Durham, North Carolina	11	6
15	NYU Langone Medical Center, New York	10	7
16	Mount Sinai Hospital, New York	10	6

Barnes-Jewish Hospital/Washington University, St. Louis

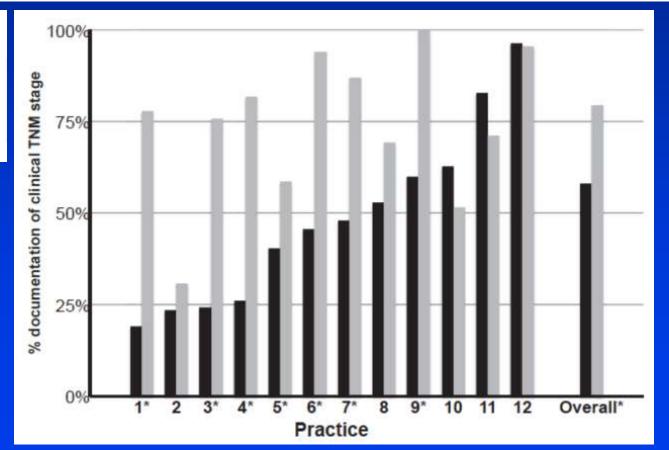
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# Improvement in Clinical TNM Staging Documentation Within a Prostate Cancer Quality Improvement Collaborative

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

UROLOGY 83 (4), 2014







# MCR SMH NSQUIP data

SS Thoracic ROR	278	12	4.32%	4.07%	3.47%	1.20	0.69	2.10		9	As expected
SS Urology Morbidity	390	15	3.85%	4.45%	7.76%	0.53	0.33	0.83	LOW	1	Exemplary

- \* Determined by Outlier status or by Decile status. When a Procedure Targeted model does not identify any statistical outliers, hospitals are not assigned to Needs Improvement, As expected, or Exemplary
- \*\* Predicted Observed Rate is the model-adjusted observed rate.
- \*\*\* C.I.: 95% Confidence Interval.

#### **Mayo Clinic Saint Marys Hospital**

Site Number: 76

#### Page 3

Subspecialties - continued

	Total Cases	Observed		Pred**	Expected	Odds	C.I.***		Outlier	Decile	Comment*
		Events	Rate	Obs. Rate	Rate	Ratio	Lower	Upper			
SS Urology Pneumonia	390	1	0.26%	0.70%	0.87%	0.80	0.42	1.54		1	Exemplary
SS Urology Renal Failure	390	3	0.77%	0.90%	0.97%	0.93	0.49	1.73		2	As expected
SS Urology UTI	390	2	0.51%	0.95%	1.95%	0.47	0.21	1.07		1	Exemplary
SS Urology SSI	390	8	2.05%	2.29%	2.83%	0.79	0.45	1.40		1	Exemplary



## **Conclusions**

BAUS urologists are performing renal surgery with good outcomes comparable to colleagues across the pond

However, the bar in North America is too low

Central data reporting on both sides of the pond will be part of normal medical care

Must use caution to assure appropriate risk adjustment

Great potential for ongoing improvement, quality control, and cost savings



# **Thank You**



