

Aligning urology residency training with real-world workforce needs

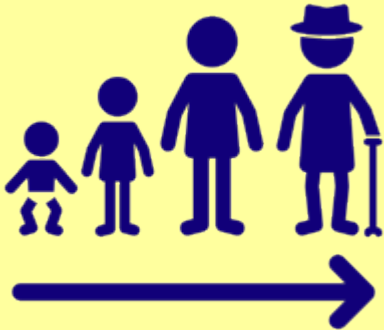
Alan Paniagua Cruz BS, Ted A. Skolarus MD MPH, Sapan N. Ambani MD,
Khaled S. Hafez MB BCh, Kate H. Kraft MD

Disclosures

None

Background

Aging patient population



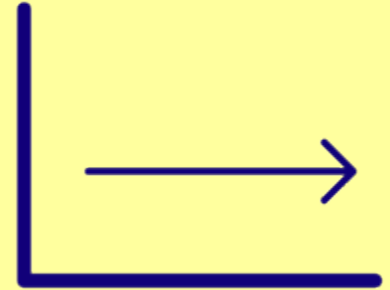
20% of US population will be ≥ 65 yo by 2030

Retiring urologists



> 50% of urologists over the age of 55

Static residency positions



Frozen GME funding by Medicare

Workforce Deficit

Evaluation of Urology Residency Training and Perceived Resident Abilities in the United States



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CONCLUSIONS: Program directors and residents have differing perceptions regarding the education and resources associated with US urology residency training programs. US graduates of urology residency programs express a perceived lack of confidence in several procedures that are commonly encountered in a general urologic practice. (J Surg Ed 76:936–948. © 2019 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

TABLE 4. List of surgical procedures and residents perceived proficiency

Surgical Procedures	Yes, Absolutely (%)	Yes, in Some Cases (%)	Not at All (%)
Procedures			
Adrenalectomy	19%	28%	53%
Cystoscopy	91%	4%	4%
Cystostomy	100%	0%	0%
Endopyelotomy	0%	13%	87%
Epispadias	3%	3%	94%
Hypospadias	16%	45%	39%
Incontinence (all procedures)	65%	35%	0%
Intestinal diversion	42%	37%	21%
Male penile reconstruction	26%	40%	35%
Orchiopexy	82%	7%	11%
Percutaneous renal procedures	48%	21%	31%
Renal transplant	19%	17%	64%
Scrotal/inguinal surgery	100%	0%	0%
Shockwave lithotripsy	72%	14%	14%
TRUS biopsy	84%	5%	11%
TUR bladder tumor	100%	0%	0%
TUR prostate	89%	9%	2%
Uretero(reno)scopy	100%	0%	0%
Ureteroscopy	87%	9%	4%
Urethral reconstruction	26%	44%	30%
Varicocelectomy	75%	23%	2%
Open procedures			
Open cystectomy	45%	27%	27%
Open radical nephrectomy	64%	24%	12%
Open partial nephrectomy	51%	24%	24%
Open pyeloplasty	60%	19%	21%
Open radical prostatectomy	42%	23%	35%
Open retroperitoneal lymphadenectomy	28%	33%	40%
Open retroperitoneal surgery	22%	26%	52%
Open simple prostatectomy	59%	29%	12%
Laparoscopic procedures			
Laparoscopic retroperitoneal lymphadenectomy	3%	10%	88%
Laparoscopic cystectomy	2%	5%	93%
Laparoscopic radical nephrectomy	49%	22%	29%
Laparoscopic partial nephrectomy	16%	16%	68%
Laparoscopic pyeloplasty	32%	21%	47%
Laparoscopic radical prostatectomy	0%	9%	91%
Laparoscopic retroperitoneal surgery	5%	10%	85%
Laparoscopic simple prostatectomy	0%	8%	92%
Robotic procedures			
Robotic cystectomy	10%	12%	79%
Robotic radical nephrectomy	34%	7%	59%
Robotic partial nephrectomy	23%	14%	64%
Robotic pyeloplasty	28%	12%	60%
Robotic radical prostatectomy	27%	11%	61%
Robotic retroperitoneal lymphadenectomy	5%	7%	88%
Robotic retroperitoneal surgery	13%	0%	88%
Robotic simple prostatectomy	8%	92%	0%

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Aim: To determine whether procedural demand and current urology workforce needs is aligned with graduating urology resident:

- 1) ACGME procedure case logs
- 2) perceived readiness for practice

Study Design

Correlative Study:

1)



Part B Summary Data File

2)



Minimum Requirements
&
Median Case Logs

3)

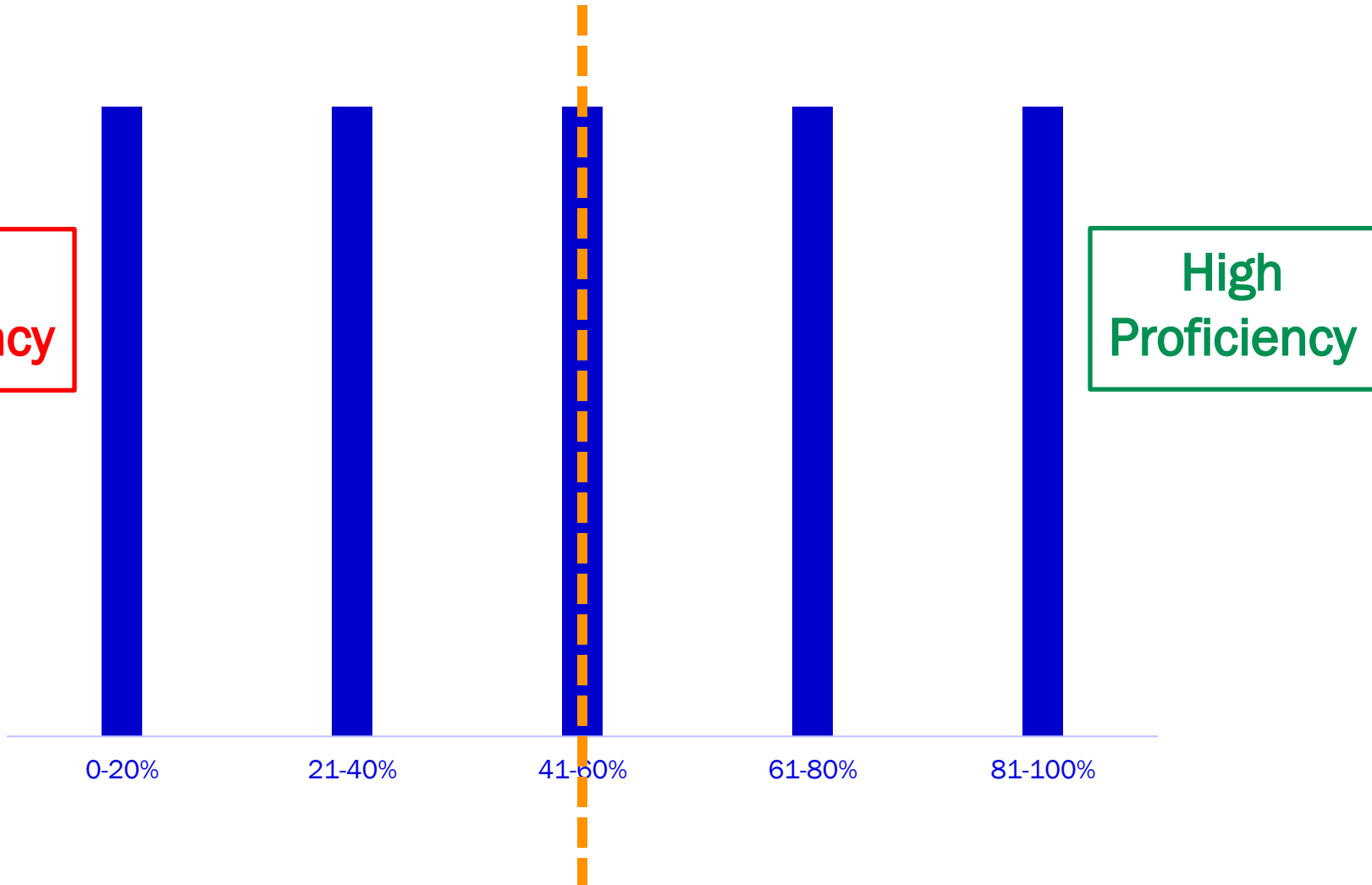


Okhunov et al.
(15 index procedures)

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Perceived Proficiency in Urologic Procedures





**Low
Proficiency**

Cystectomy
Endopyelotomy
Lap Nephrectomy
Lap Pyeloplasty
PCNL
RAL Prostatectomy
RPLND
Urethroplasty



**High
Proficiency**

Cystoscopy
Open Nephrectomy
Sling
TRUS Biopsy
TURBT
TURP
Ureteroscopy

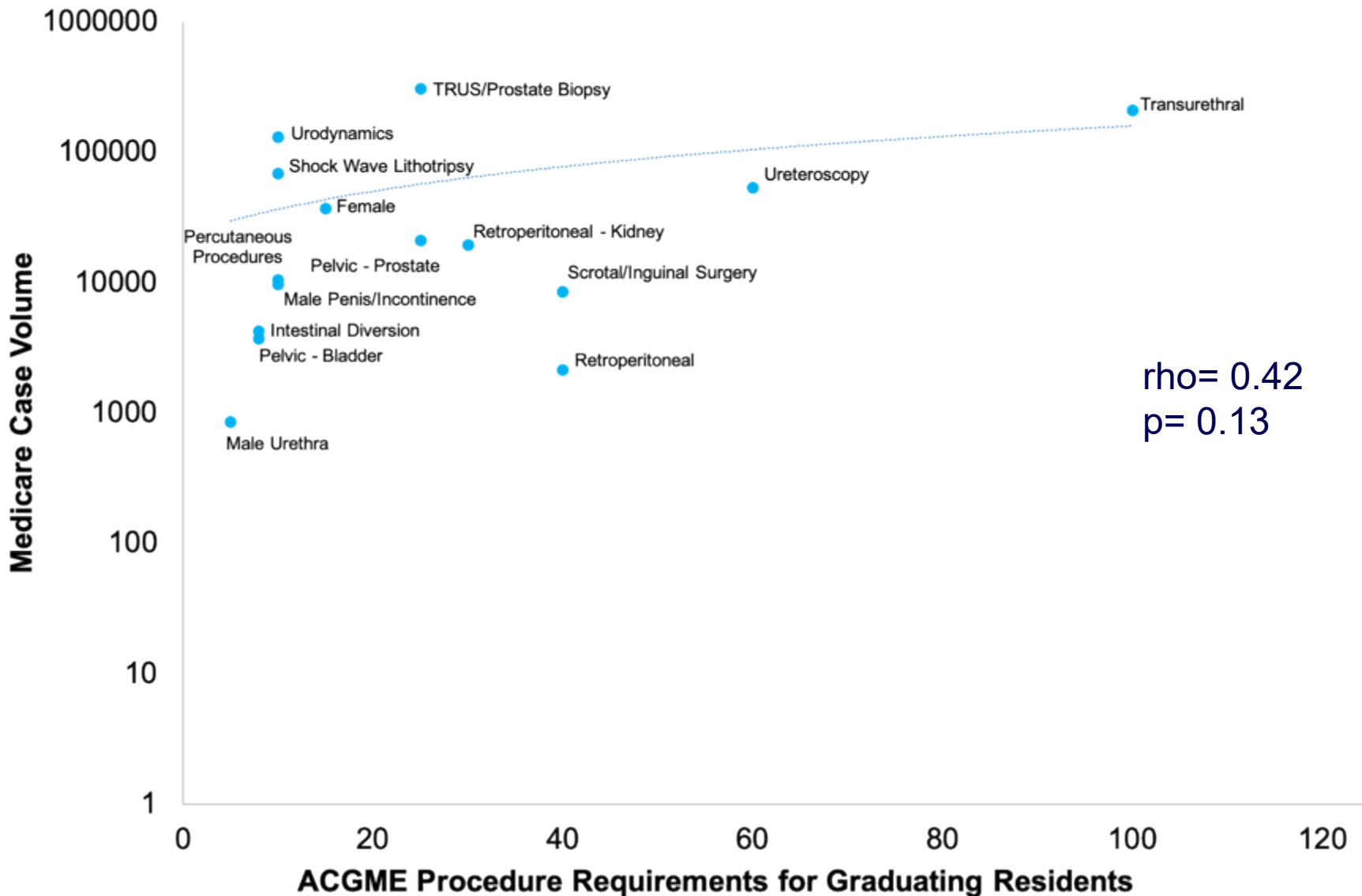
Results

Aim: To determine whether procedural demand and current urology workforce needs is aligned with graduating urology resident:

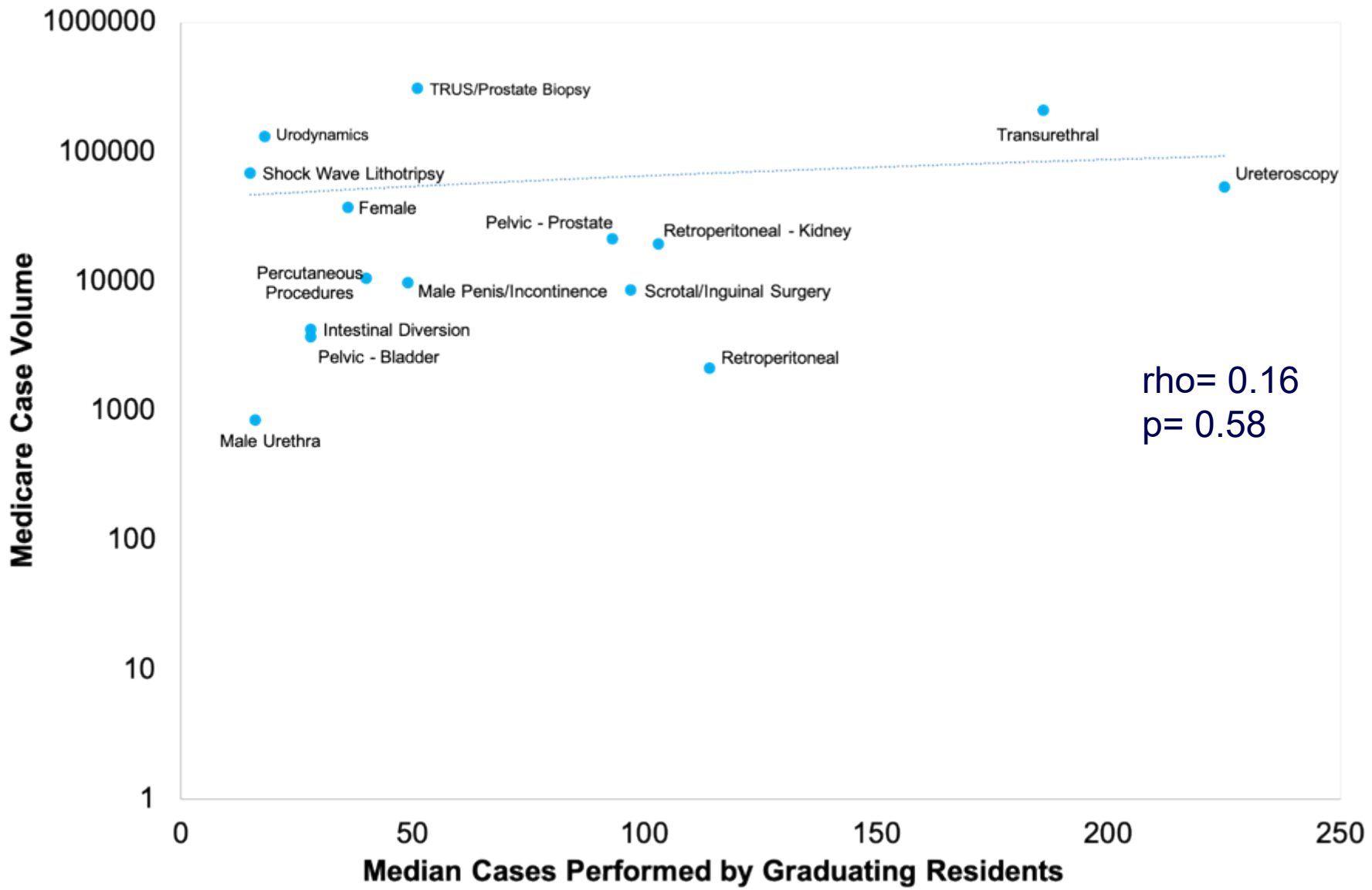
1) ACGME procedure case logs

2) perceived readiness for practice

ACGE Case Log Requirements for Graduating Urology Residents vs Medicare Case Volume



Median Number of Cases Performed by Graduating Urology Residents vs Medicare Case Volume

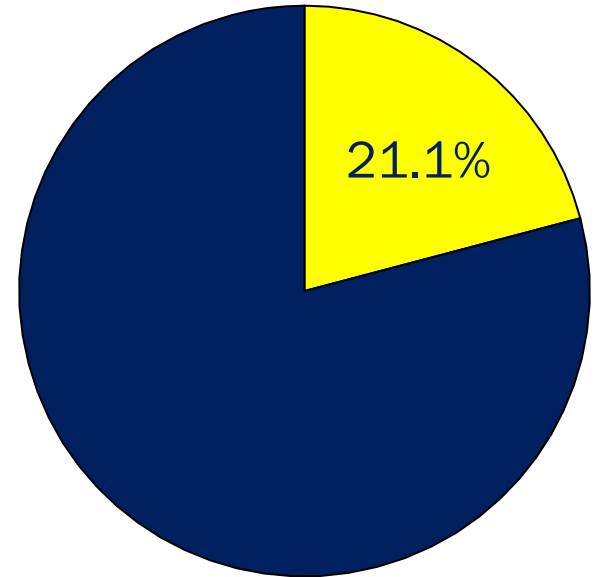


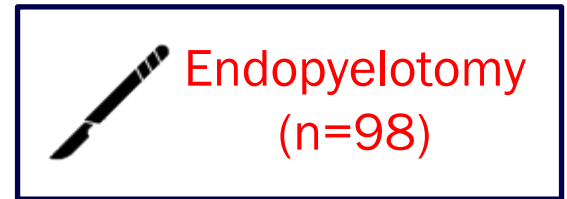
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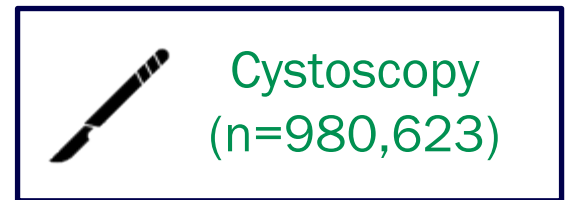
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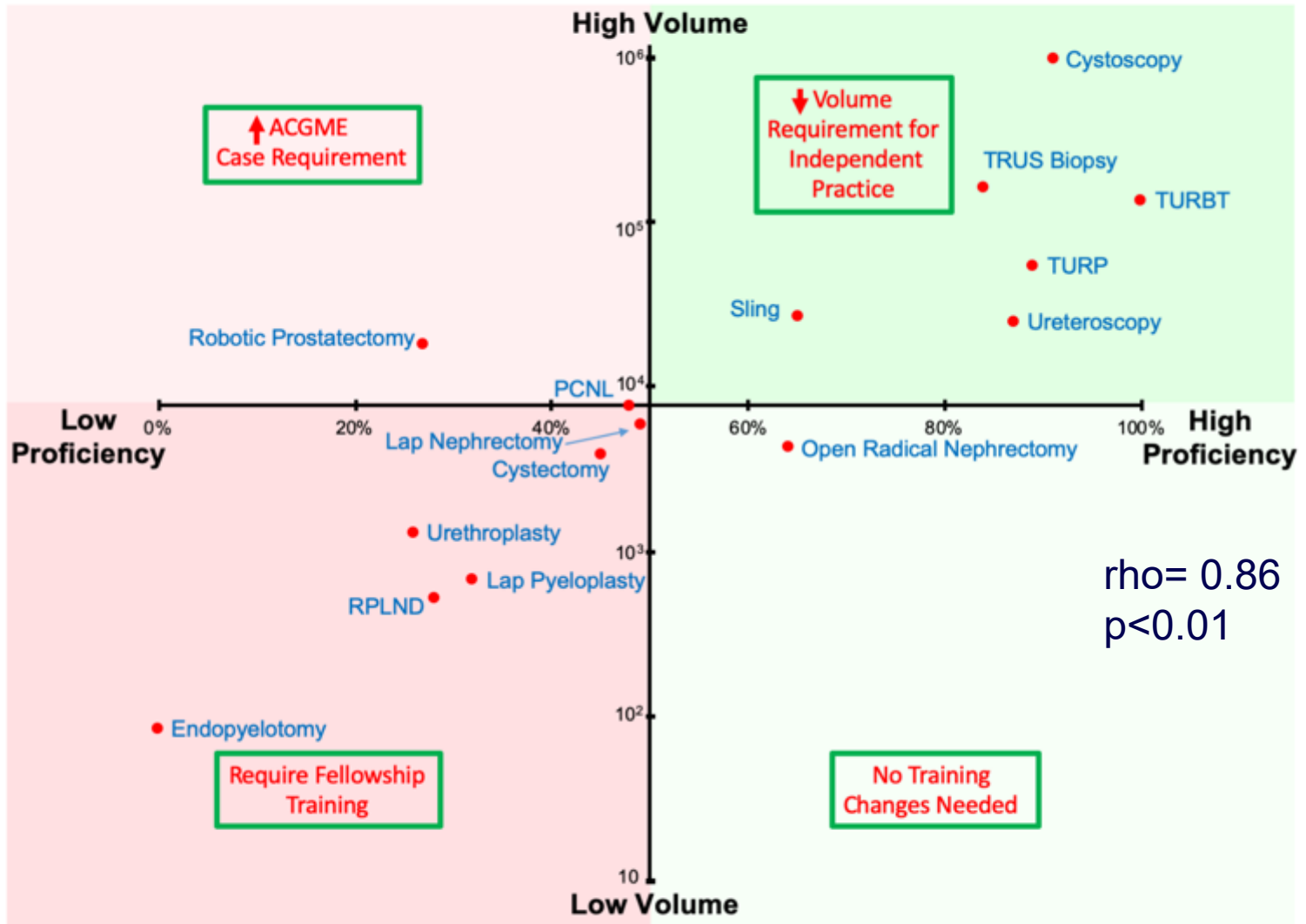




$r=0.86$
 $p<0.01$



Graduating Resident Confidence in Performing Index Urologic Procedures by CMS Case Volume



- Volume designation was based on whether procedure cases were above or below the median (7,706).

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Conclusion: We need to improve the alignment of training and workforce demand by altering volume requirements (both increasing and decreasing) and fellowship training opportunities in urology

Questions?

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