

# Important Pediatric Urology Articles of 2018 - 2019

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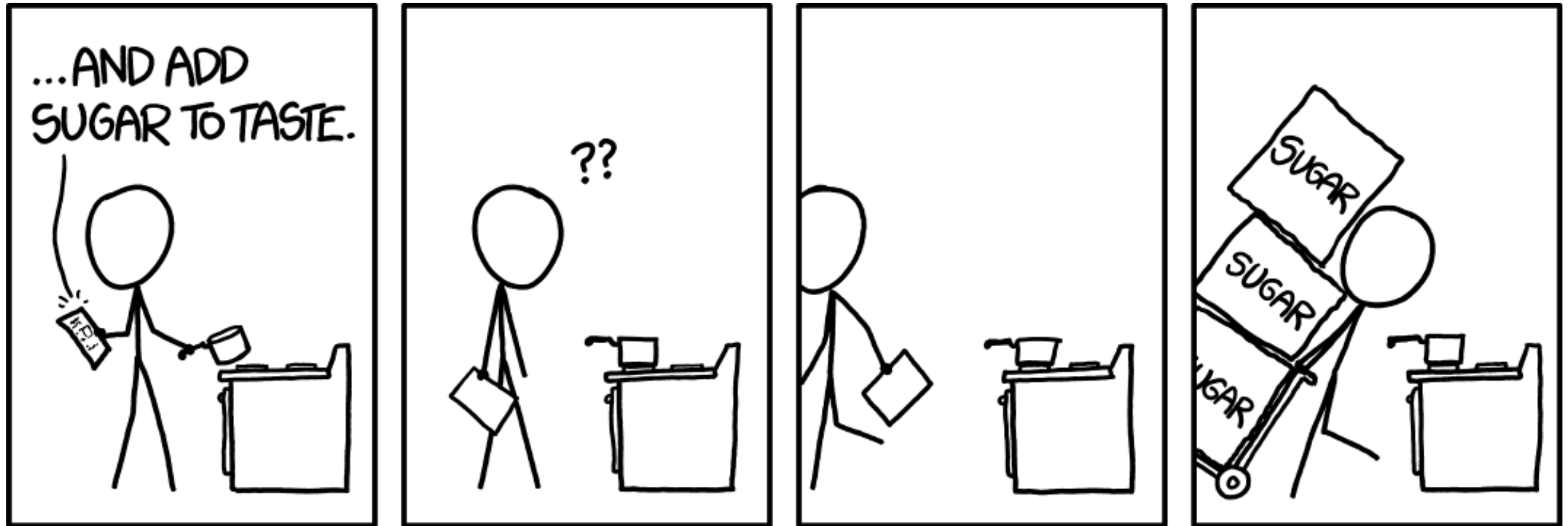


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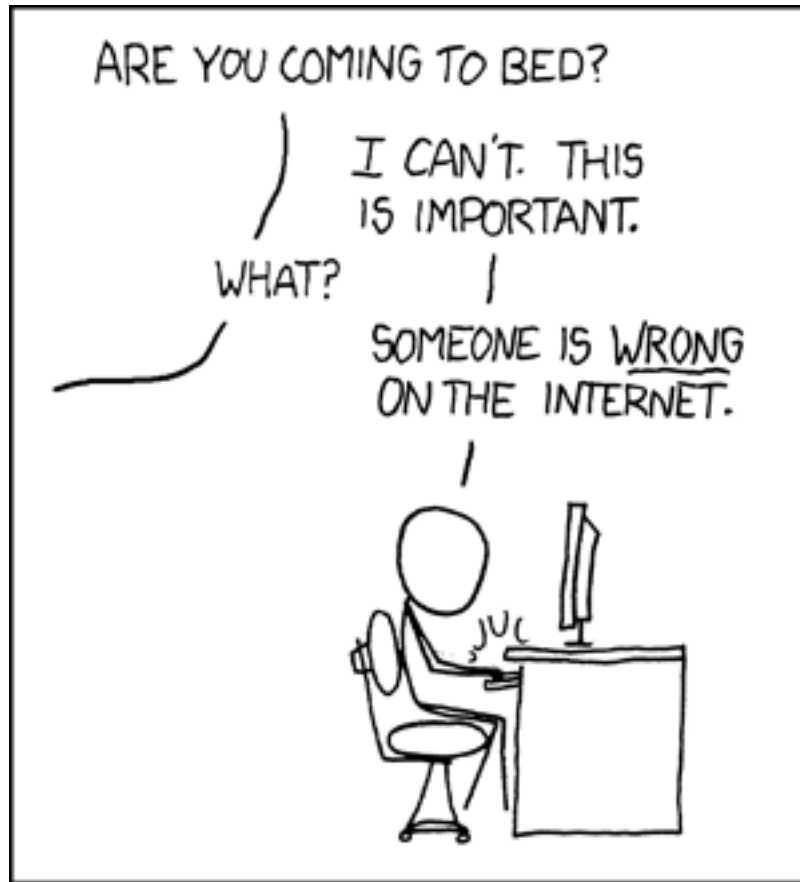


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# What's "Top" when accounting for taste?



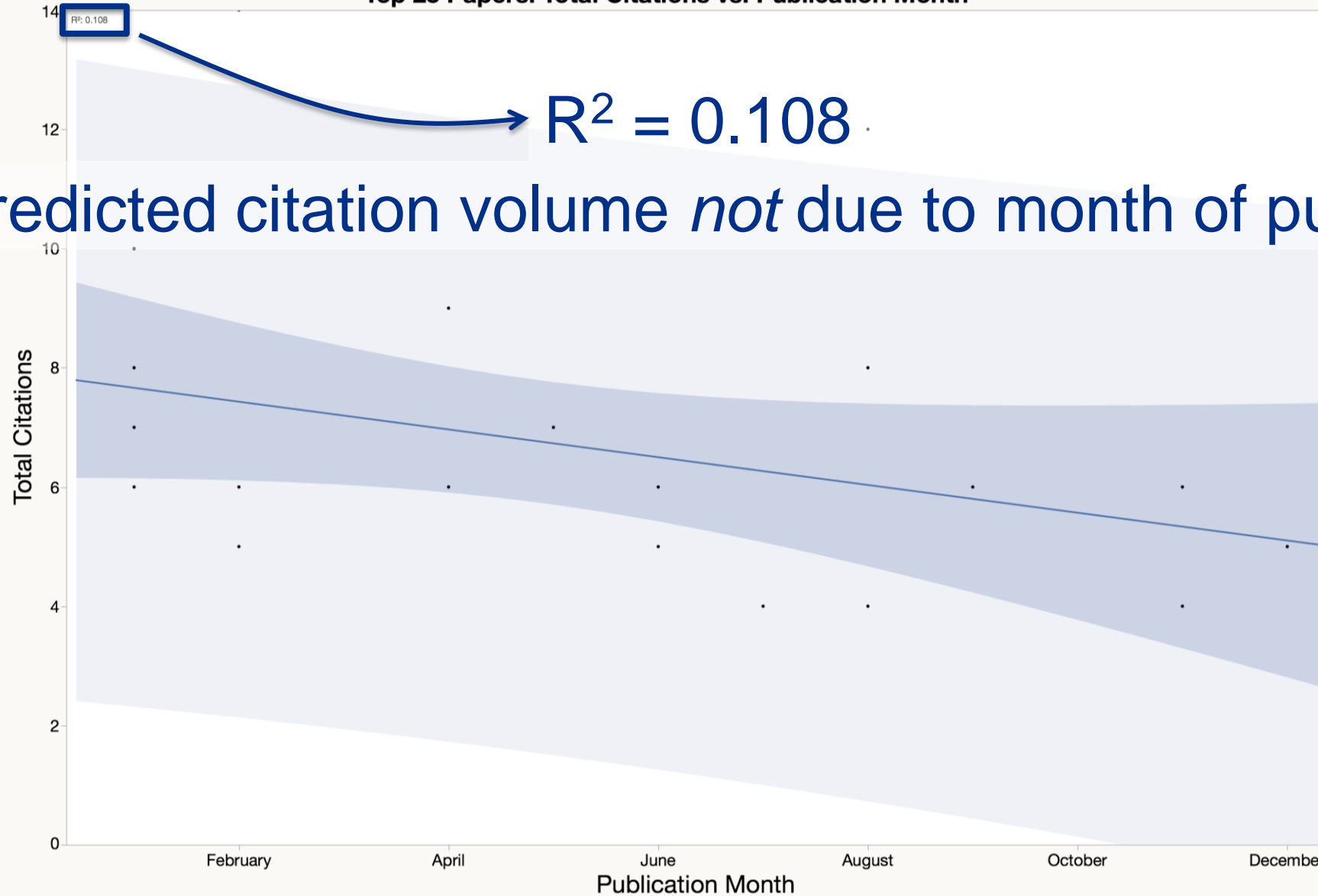
# Web of Science to the rescue!



<input type="checkbox"/>	1.	Accuracy of the Urinalysis for Urinary Tract Infections in Febrile Infants 60 Days and Younger	0	0	0	5	9	14	7.00
		By: Tzimenatos, Leah; Mahajan, Prashant; Dayan, Peter S.; et al. Group Author(s): PECARN PEDIATRICS Volume: 141 Issue: 2 Article Number: e20173068 Published: FEB 2018							
<input type="checkbox"/>	2.	Has the robot caught up? National trends in utilization, perioperative outcomes, and cost for open, laparoscopic, and robotic pediatric pyeloplasty in the United States from 2003 to 2015	0	0	0	1	11	12	6.00
		By: Varda, Briony K.; Wang, Ye; Chung, Benjamin, I; et al. JOURNAL OF PEDIATRIC UROLOGY Volume: 14 Issue: 4 Article Number: 336.e1 Published: AUG 2018							
<input type="checkbox"/>	3.	ECIL guidelines for the prevention, diagnosis and treatment of BK polyomavirus-associated haemorrhagic cystitis in haematopoietic stem cell transplant recipients	0	0	0	5	5	10	5.00
		By: Cesaro, Simone; Dalianis, Tina; Rinaldo, Christine Hanssen; et al. Group Author(s): European Grp Blood Marrow; European Org Res Treatment Canc; ICHS; et al. JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY Volume: 73 Issue: 1 Pages: 12-21 Published: JAN 2018							
<input type="checkbox"/>	4.	Perinatal Diagnosis, Management, and Follow-up of Cystic Renal Diseases A Clinical Practice Recommendation With Systematic Literature Reviews	0	0	0	7	3	10	5.00
		By: Gimpel, Charlotte; Avni, Fred E.; Bergmann, Carsten; et al. JAMA PEDIATRICS Volume: 172 Issue: 1 Pages: 74-86 Published: JAN 2018							
<input type="checkbox"/>	5.	The evaluation and management of urolithiasis in the ED: A review of the literature	0	0	0	4	5	9	4.50
		By: Gottlieb, Michael; Long, Brit; Koyfman, Alex AMERICAN JOURNAL OF EMERGENCY MEDICINE Volume: 36 Issue: 4 Pages: 699-706 Published: APR 2018							
<input type="checkbox"/>	6.	Sex Differences in Reproductive Hormones During Mini-Puberty in Infants With Normal and Disordered Sex Development	0	0	0	0	8	8	4.00
		By: Johannsen, Trine Holm; Main, Katharina Maria; Ljubcic, Marie Lindhardt; et al. JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM Volume: 103 Issue: 8 Pages: 3028-3037 Published: AUG 2018							
<input type="checkbox"/>	7.	Pathogen Distribution and Antimicrobial Resistance Among Pediatric Healthcare-Associated Infections Reported to the National Healthcare Safety Network, 2011-2014	0	0	0	4	4	8	4.00
		By: Lake, Jason G.; Weiner, Lindsay M.; Milstone, Aaron M.; et al. INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY Volume: 39 Issue: 1 Pages: 1-11 Published: JAN 2018							
<input type="checkbox"/>	8.	Improved outcome at end of treatment in the collaborative Wilms tumour Africa project	0	0	0	1	6	7	3.50
		By: Israels, Trijn; Paintsil, Vivian; Nyirenda, Dalida; et al. PEDIATRIC BLOOD & CANCER Volume: 65 Issue: 5 Article Number: e26945 Published: MAY 2018							
<input type="checkbox"/>	9.	Febrile urinary-tract infection due to extended-spectrum beta-lactamase-producing Enterobacteriaceae in children: A French prospective multicenter study	0	0	0	2	5	7	3.50
		By: Madhi, Fouad; Jung, Camille; Timsit, Sandra; et al. Group Author(s): Urinary-Tract Infect Extended- PLOS ONE Volume: 13 Issue: 1 Article Number: e0190910 Published: JAN 25 2018							
<input type="checkbox"/>	10.	Comparing oncologic outcomes after minimally invasive and open surgery for pediatric neuroblastoma and Wilms tumor	0	0	0	3	4	7	3.50
		By: Ezekian, Brian; Englum, Brian R.; Gulack, Brian C.; et al. PEDIATRIC BLOOD & CANCER Volume: 65 Issue: 1 Article Number: e26755 Published: JAN 2018							



Top 25 Papers: Total Citations vs. Publication Month



~90% predicted citation volume *not* due to month of publication





# Game plan

- We'll discuss:
  - The **highest cited, highest altmetric** ranked papers in our field of pediatric urology
  - Very few from Journal of Urology (by chance) → ↓↓overlap with the AUA annual summary
  - No reviews

You'll be surprised!





# Accuracy of the Urinalysis for Urinary Tract Infections in Febrile Infants 60 Days and Younger



Leah Tzimenatos, MD,<sup>a</sup> Prashant Mahajan, MD, MPH, MBA,<sup>b</sup> Peter S. Dayan, MD, MSc,<sup>c</sup> Melissa Vitale, MD,<sup>d</sup> James G. Linakis, MD, PhD,<sup>e</sup> Stephen Blumberg, MD,<sup>f</sup> Dominic Borgianni, DO, MPH,<sup>g</sup> Richard M. Ruddy, MD,<sup>h</sup> John Van Buren, PhD,<sup>i</sup> Octavio Ramilo, MD,<sup>j</sup> Nathan Kuppermann, MD, MPH,<sup>a,k</sup> for the Pediatric Emergency Care Applied Research Network (PECARN)

- **UTIs account for ~90% of all serious bacterial infections** (defined as UTIs, bacteremia, and bacterial meningitis) **in febrile infants 60 days of age or less**
- Unclear how reliable a **urinalysis alone** is in diagnosing urinary tract infection in neonates



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Velasco R, Benito H, Mozun R, et al; Group for the Study of Febrile Infant of the RiSEUP-SPERG Network. Using a urine dipstick to identify a positive urine culture in young febrile infants is as effective as in older patients. *Acta Paediatr*. 2015;104(1):e39–e44

Schroeder AR, Chang PW, Shen MW, Biondi EA, Greenhow TL. Diagnostic accuracy of the urinalysis for urinary tract infection in infants <3 months of age. *Pediatrics*. 2015;135(6):965–971

Shaw KN, McGowan KL, Gorelick MH, Schwartz JS. Screening for urinary tract infection in infants in the emergency department: which test is best? *Pediatrics*. 1998;101(6). Available



Crain EF, Gershel JC. Urinary tract infections in febrile infants younger than 8 weeks of age. *Pediatrics*. 1990;86(3):363–367

Bachur RG, Harper MB. Predictive model for serious bacterial infections among infants younger than 3 months of age. *Pediatrics*. 2001;108(2):311–316

Reardon JM, Carstairs KL, Rudinsky SL, Simon LV, Riffenburgh RH, Tanen DA. Urinalysis is not reliable to detect a urinary tract infection in febrile infants presenting to the ED. *Am J Emerg Med*. 2009;27(8):930–932



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20th Century Fox

# Accuracy of the Urinalysis for Urinary Tract Infections in Febrile Infants 60 Days and Younger

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- Wait ... *don't you always get a urine culture?*
  - >20% of patients will *not* get urine cultures (despite guidelines)
  - What do you do before the culture is back?
  - What about lab sabotage?





# Solution?

- Lots of babies!
- Ages 0-60 days
- 4147 infants, 298 with UTI
  - 26 centers across the USA
  - 73% of the cohort is female



**TABLE 3** Test Characteristics of Single Components and Aggregate Urinalysis for Diagnosing UTI, Stratified by Bacteremia Status

	Sensitivity (95% CI)	Specificity (95% CI)
Identification of any UTI ( <i>N</i> = 289)		
Any LE, <i>n</i> = 4147	0.92 (0.89–0.95)	0.96 (0.95–0.96)
Nitrites, <i>n</i> = 4147	0.38 (0.33–0.44)	0.99 (0.99–1.00)
Pyuria, >5 WBCs/HPF, <i>n</i> = 4100	0.82 (0.77–0.86)	0.94 (0.93–0.94)
LE or nitrites, <i>n</i> = 4147	0.93 (0.90–0.96)	0.95 (0.95–0.96)
Aggregate urinalysis (LE or nitrites or pyuria), <i>n</i> = 4147	0.94 (0.91–0.97)	0.91 (0.90–0.91)
Identification of UTI with bacteremia ( <i>N</i> = 27)		
Any LE, <i>n</i> = 3885	1.00 (0.87–1.00)	0.96 (0.95–0.96)
Nitrites, <i>n</i> = 3885	0.41 (0.22–0.61)	0.99 (0.99–1.00)
Pyuria, >5 WBCs/HPF, <i>n</i> = 3858	0.77 (0.55–0.92)	0.94 (0.93–0.94)
LE or nitrites, <i>n</i> = 3885	1.00 (0.87–1.00)	0.95 (0.95–0.96)
Aggregate urinalysis (LE or nitrites or pyuria), <i>n</i> = 3885	1.00 (0.87–1.00)	0.91 (0.90–0.91)
Identification of UTI without bacteremia ( <i>N</i> = 262)		
Any LE, <i>n</i> = 4120	0.92 (0.88–0.95)	0.96 (0.95–0.96)
Nitrites, <i>n</i> = 4120	0.38 (0.32–0.44)	0.99 (0.99–1.00)
Pyuria, >5 WBCs/HPF, <i>n</i> = 4078	0.82 (0.77–0.87)	0.94 (0.93–0.94)
LE or nitrites, <i>n</i> = 4120	0.92 (0.88–0.95)	0.95 (0.95–0.96)
Aggregate urinalysis (LE or nitrites or pyuria), <i>n</i> = 4120	0.94 (0.90–0.96)	0.91 (0.90–0.91)



# One-liner

**In infants <60 days, a broad definition of UTI on UA works**

- ***Any*** leukocyte esterase
- ***Any*** nitrite
- **>5 WBC** / hpf
- You've got a UTI (patient will grow >50K uropathogen)
- At least 94% sensitivity and 91% specificity
- Still check a urine culture

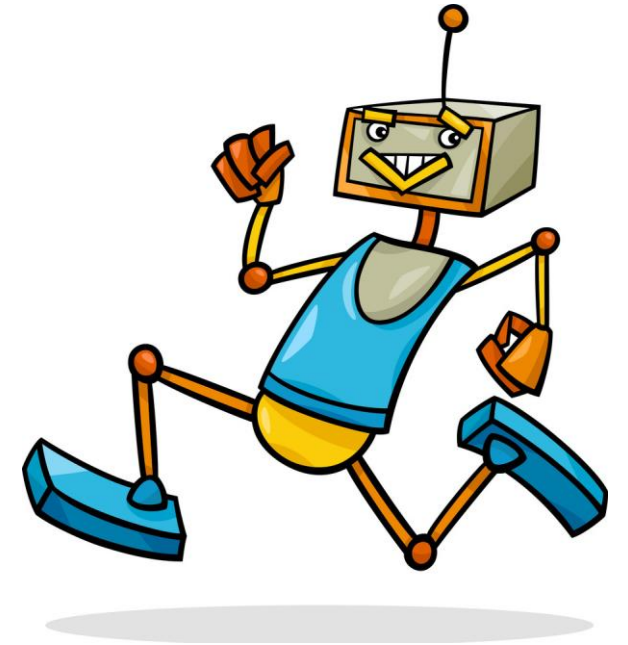




# Has the robot caught up? National trends in utilization, perioperative outcomes, and cost for open, laparoscopic, and robotic pediatric pyeloplasty in the United States from 2003 to 2015

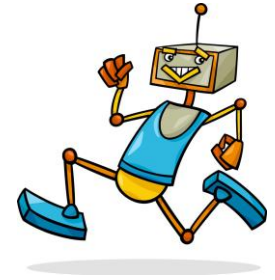
Briony K. Varda<sup>a</sup>, Ye Wang<sup>b</sup>, Benjamin I. Chung<sup>c</sup>, Richard S. Lee<sup>a</sup>, Michael P. Kurtz<sup>a</sup>, Caleb P. Nelson<sup>a</sup>, Steven L. Chang<sup>b</sup>

*Journal of Pediatric Urology* (2018) **14**, 336.e1–336.e8





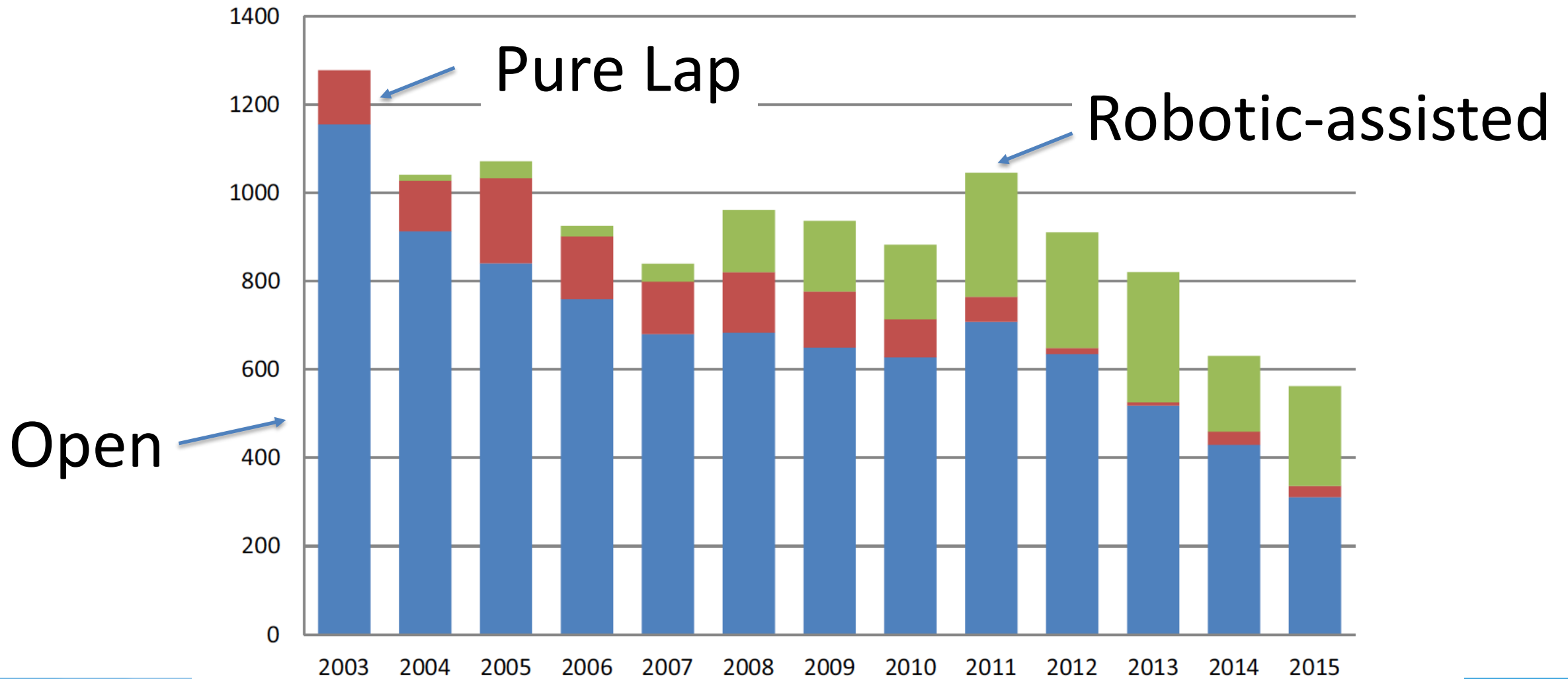
Has the robot caught up? National trends in utilization, perioperative outcomes, and cost for open, laparoscopic, and robotic pediatric pyeloplasty in the United States from 2003 to 2015



- Nationally representative sample of U.S. hospitalizations between 2003 and 2015
- 11,899 pyeloplasties were performed: 75% open, 10% laparoscopic, and 15% robotic
- Analyzed usage, costs, using propensity matching and a clustered design

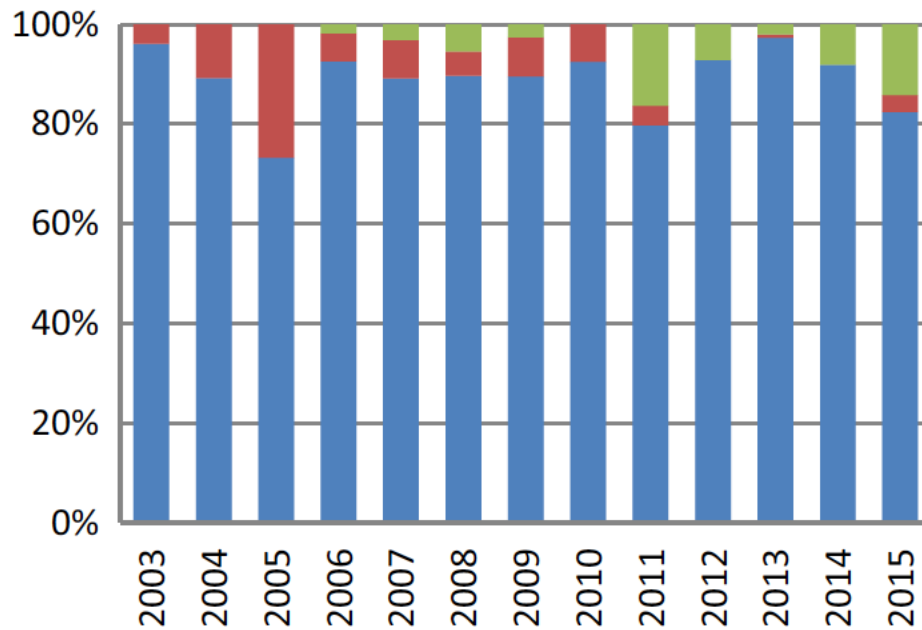


# Pyeloplasties over time

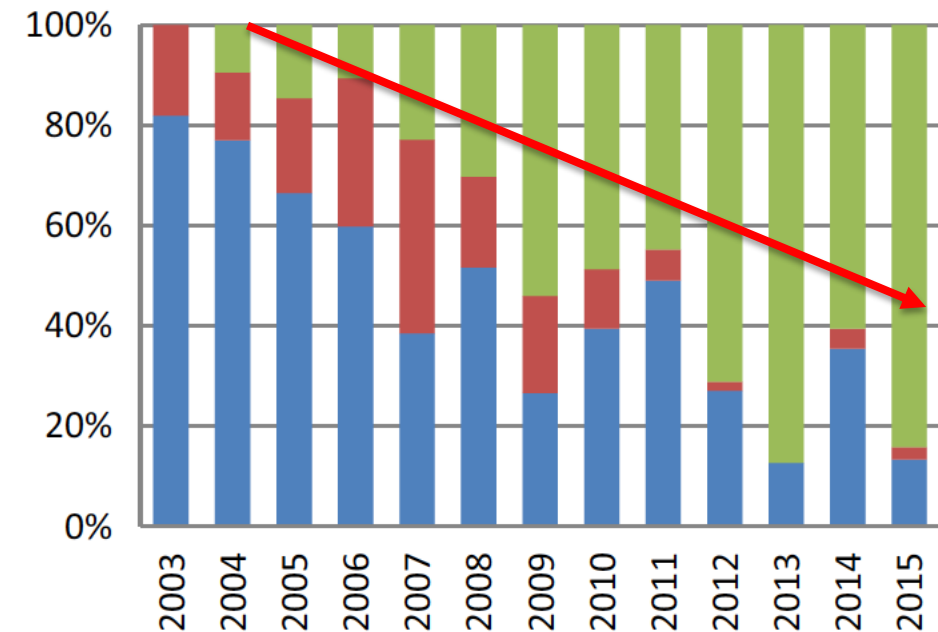


# Older patients are more likely to have a robotic approach

b) Infants (<1 year)



d) Adolescents (13-18 years)



# Robotic versus open costs

**Table** Propensity-score weighted multivariable-adjusted analyses for perioperative outcomes and cost associated with robotic pyeloplasty (as compared with the open approach).

	OR	95% CI	<i>p</i> -value
Prolonged LOS (>2 days)	0.14	(0.05–0.38)	0.001
Prolonged OT (>200 min)	5.4	(3.1–9.2)	<0.001
Complications	0.80	(0.34, 1.9)	0.62
	Open	Robotic	<i>p</i> -value
Median cost (USD)	\$10,817	\$11,877	0.03

LOS = length of stay; OT = operative time.

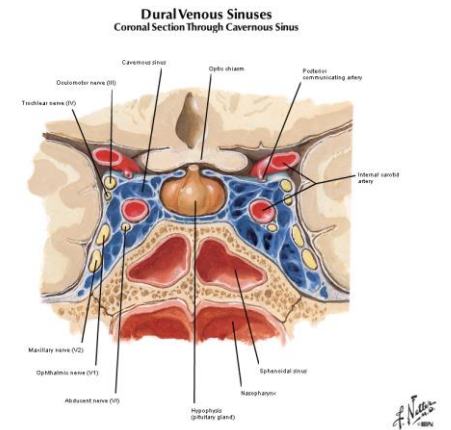
- Robotic surgery is associated with:
  - Shorter LOS, prolonged operative time, comparable complications, and higher costs (equipment, OR costs)





## Sex Differences in Reproductive Hormones During Mini-Puberty in Infants With Normal and Disordered Sex Development

Trine Holm Johannsen,<sup>1,2</sup> Katharina Maria Main,<sup>1,2</sup> Marie Lindhardt Ljubicic,<sup>1,2</sup> Tina Kold Jensen,<sup>1,2,3,4</sup> Helle Raun Andersen,<sup>3</sup> Marianne Skovsager Andersen,<sup>5</sup> Jørgen Holm Petersen,<sup>1,2,6</sup> Anna-Maria Andersson,<sup>1,2</sup> and Anders Juul<sup>1,2</sup>



- Hypothalamic-pituitary-gonadal axis is **activated in infancy**
  - Peaks when the infant is between **1 week and 3 months of age**
- Can we use hormonal measures to develop a nomogram?

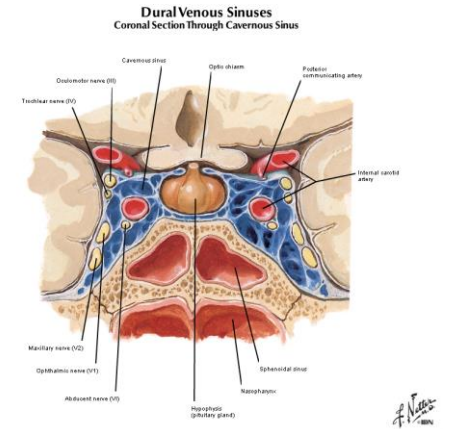






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- 1840 infants from healthy cohorts in Denmark
- 27 infants with DSD aged 2-5 months
  - LH, FSH, testosterone (T), estradiol, sex hormone– binding globulin (SHBG), inhibin B, anti-Mullerian hormone (AMH), dehydroepiandrosterone (DHEA), DHEA sulfate (DHEAS), 17-hydroxyprogesterone (17-OHP), androstenedione, and LH/FSH ratio.

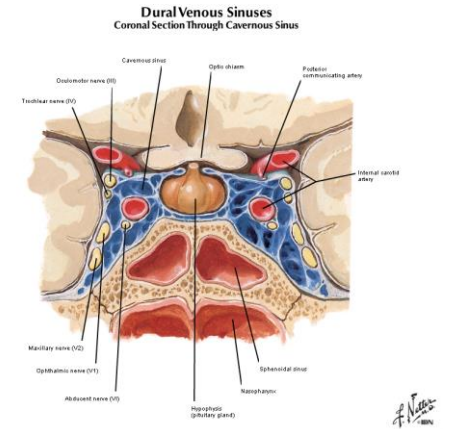






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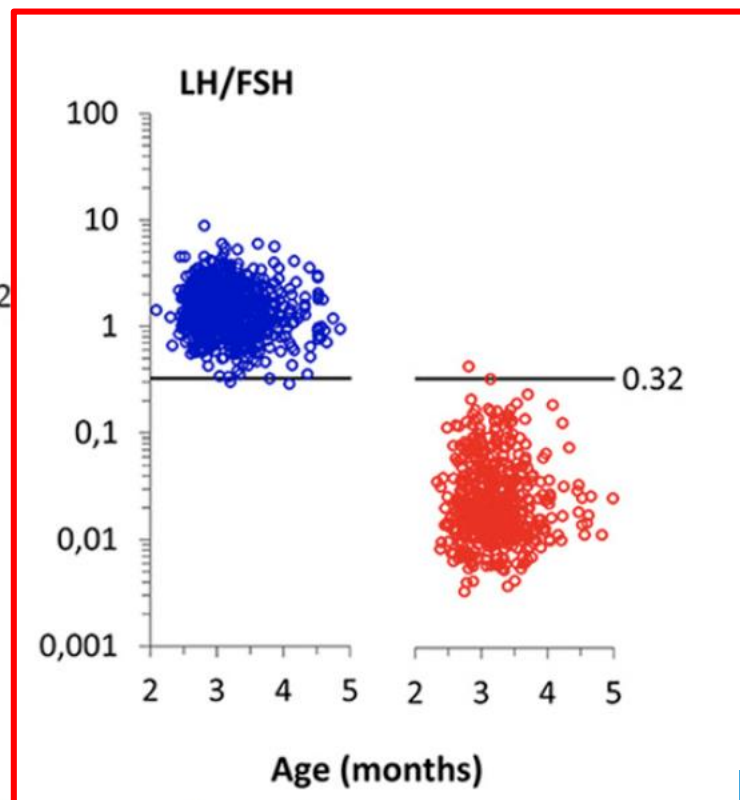
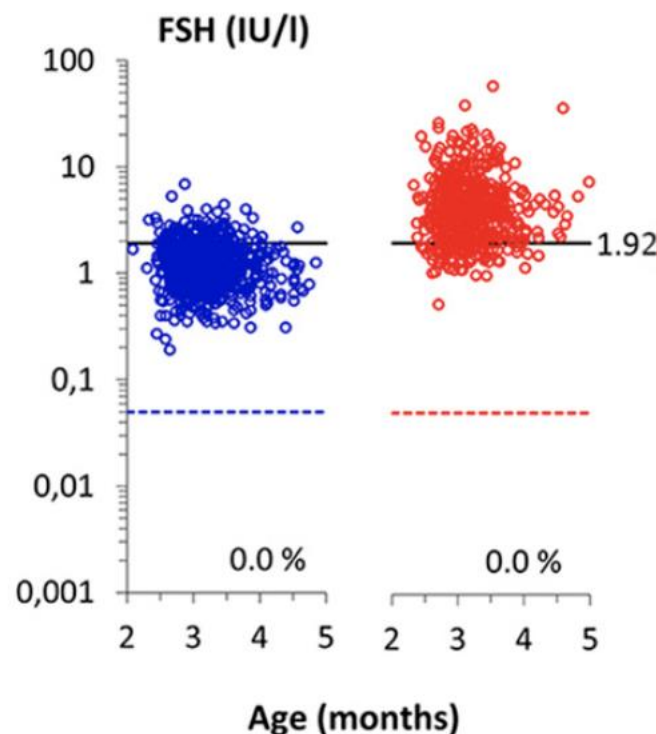
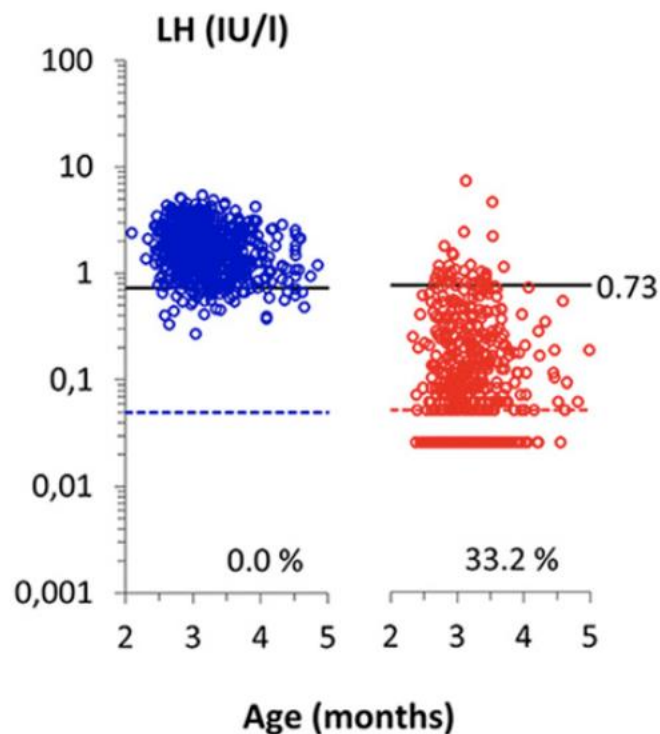
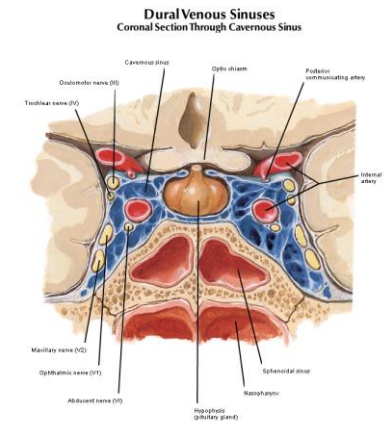
- LH and FSH concentrations showed overlap between sexes, with LH being highest in boys and **FSH being highest in girls (Female = FSH)**
  - The LH/FSH ratio separated infant boys from girls with minimal overlap at a cutoff value of 0.32
  - Inhibin-B and AMH concentrations were higher in boys





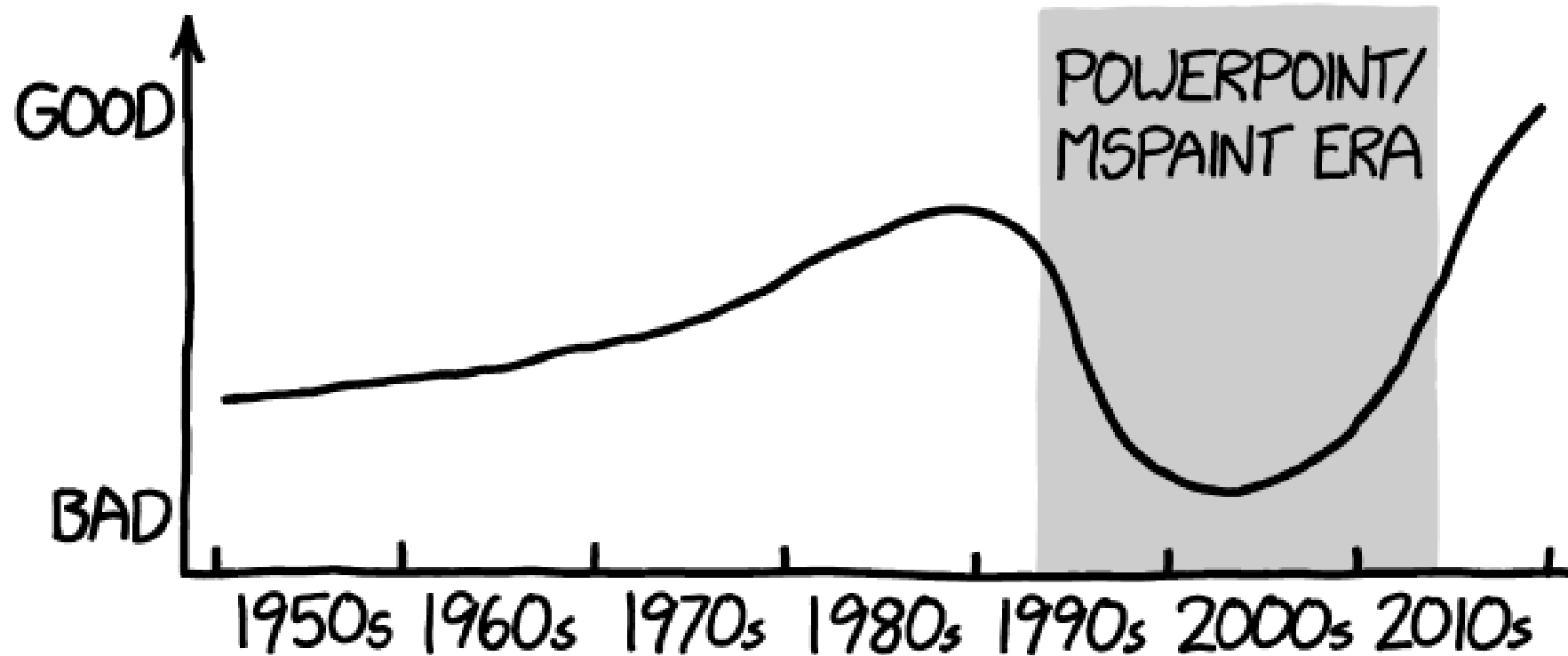
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**Figure 1.** Serum concentrations of LH, FSH, and the LH/FSH ratio in boys (blue) and girls (red) during mini-puberty. The concentrations are shown on a log with base 10 (log<sub>10</sub>)-transformed y-axis (dotted lines, LOD; solid lines, cutoff value for separating boys from girls; %, percentage of measurements below LOD).

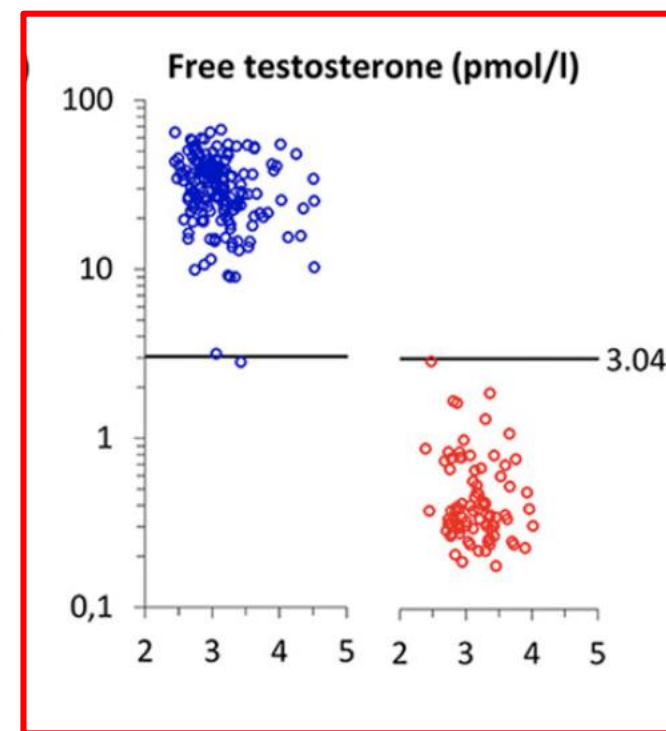
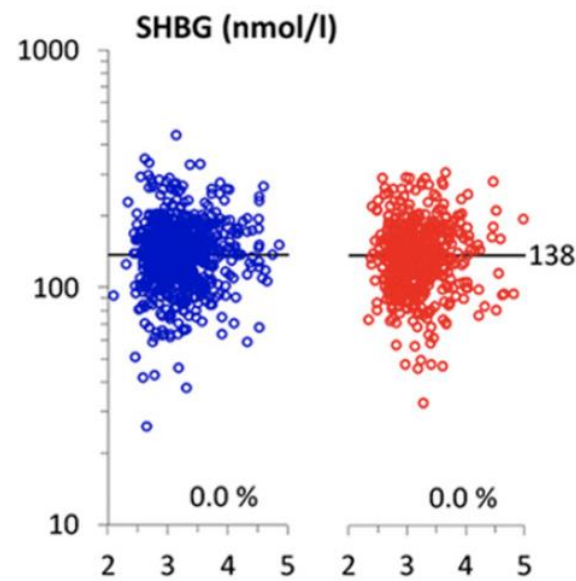
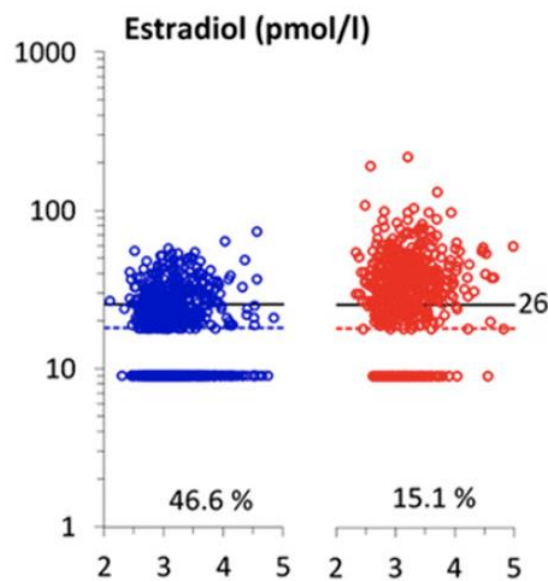
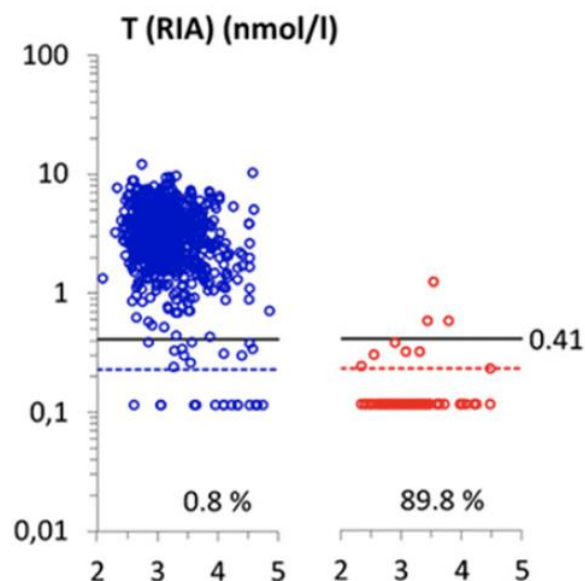
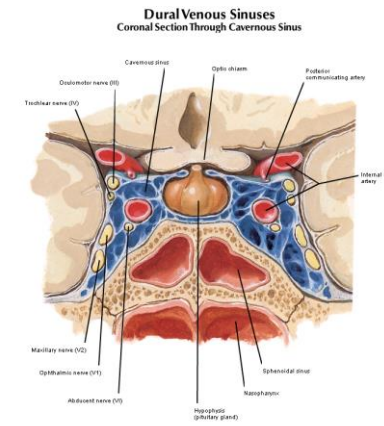
# GENERAL QUALITY OF CHARTS AND GRAPHS IN SCIENTIFIC PAPERS





## Sex Differences in Reproductive Hormones During Mini-Puberty in Infants With Normal and Disordered Sex Development

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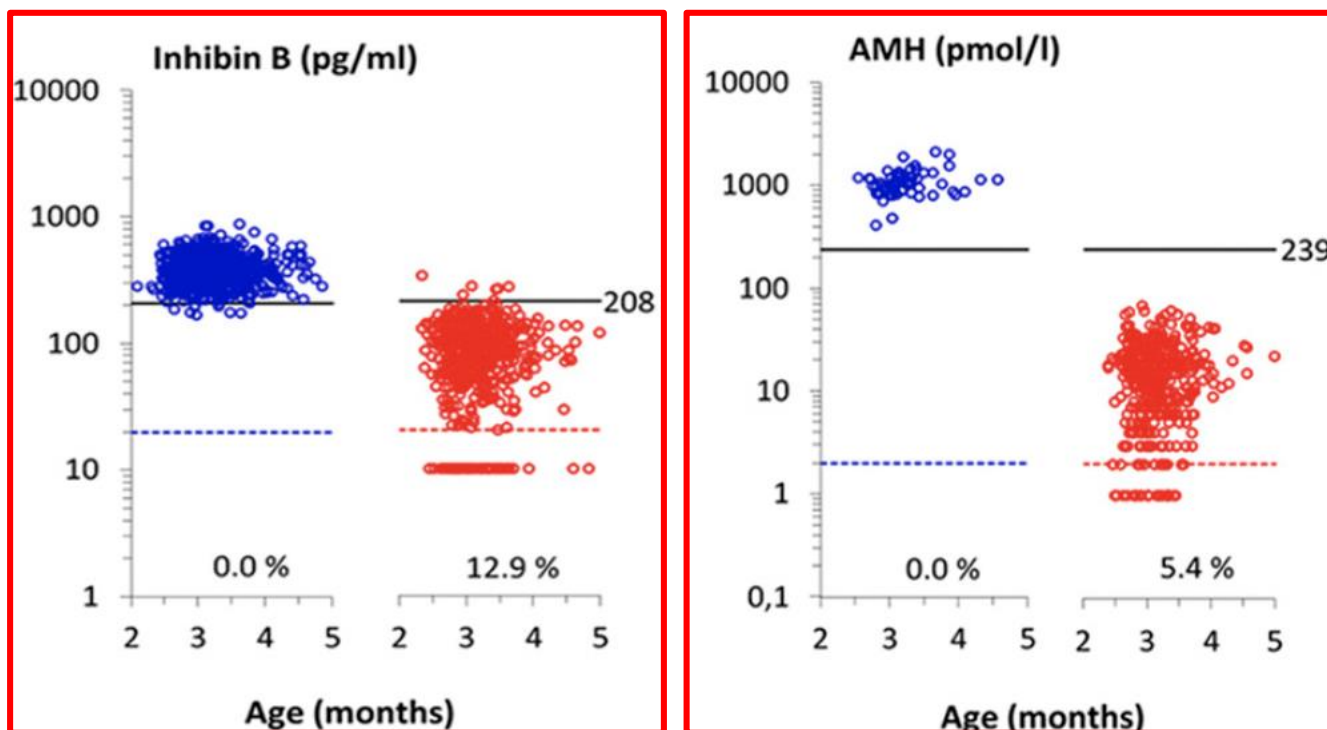
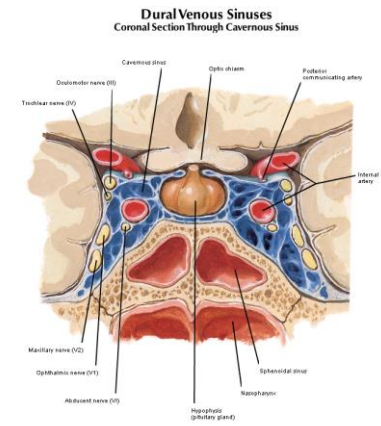






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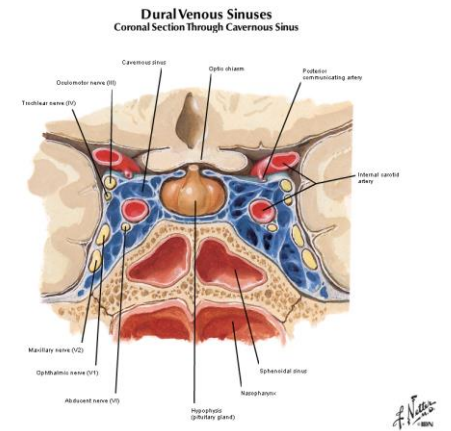
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- Infants with compete androgen insensitivity
  - LH/FSH ratios were in the range of control males
- Klinefelter, Turner, 45,X/46,XY mosaicism
  - LH/FSH ratios matched the gender of rearing
- In mini-puberty, *“the classifiers that best separated sex in mini-puberty were **AMH, LH/FSH ratio, and T**”*



# National Trends in the Management of Primary Vesicoureteral Reflux in Children

Michael Garcia-Roig, Curtis Travers, Courtney E. McCracken and Andrew J. Kirsch\*

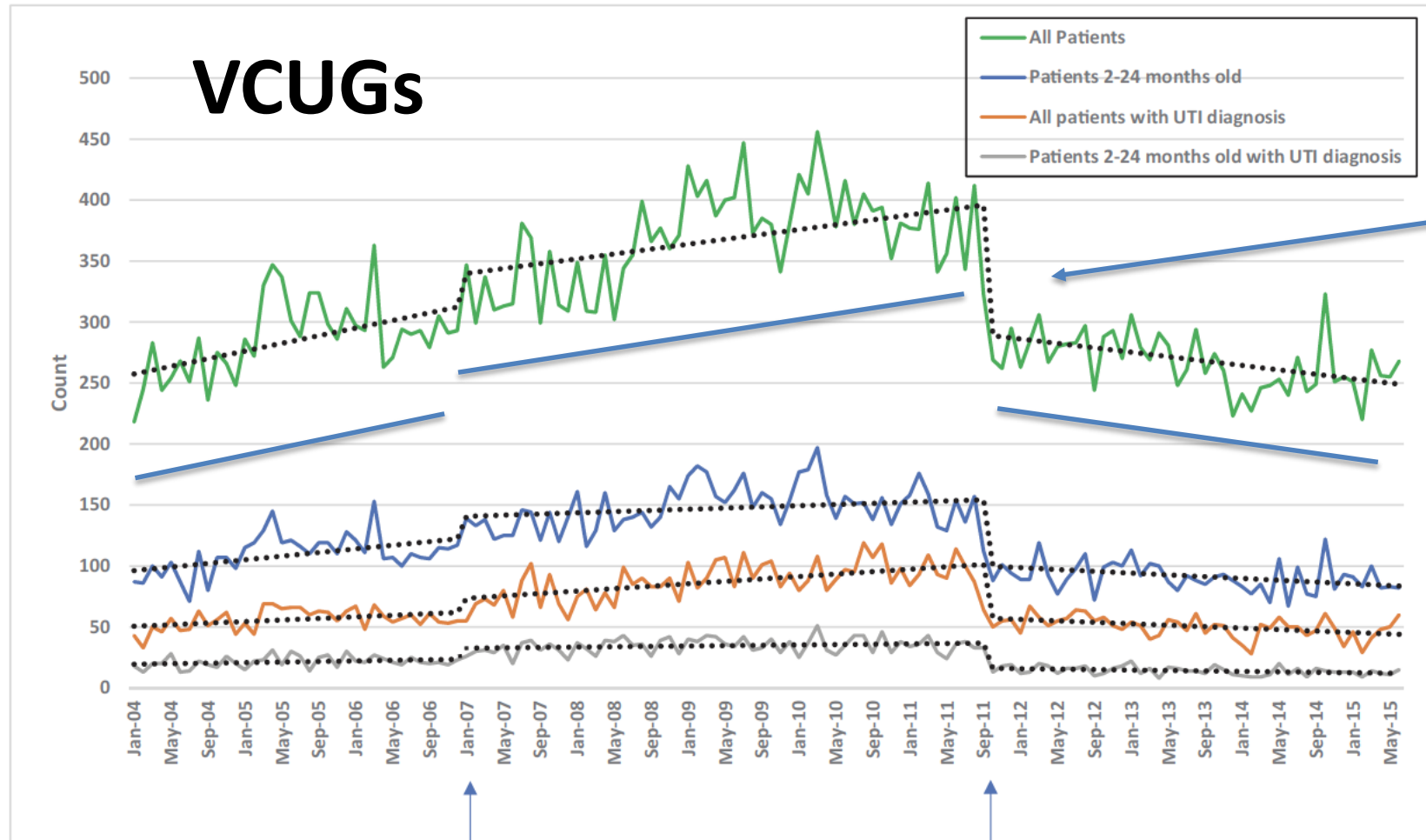
*From the Department of Pediatric Urology, Emory University and Children's Healthcare of Atlanta (MG-R, AJK), and Department of Pediatrics - Biostatistics Core, Emory University (CT, CEM), Atlanta, Georgia*

- AAP guidelines changed regarding infant UTI workup in September of 2011
- Study uses PHIS (~15% of pediatric hospitalizations) to examine the degree to which VCUGs ordered and anti-reflux operations performed changed after this release
- Interrupted time series analysis





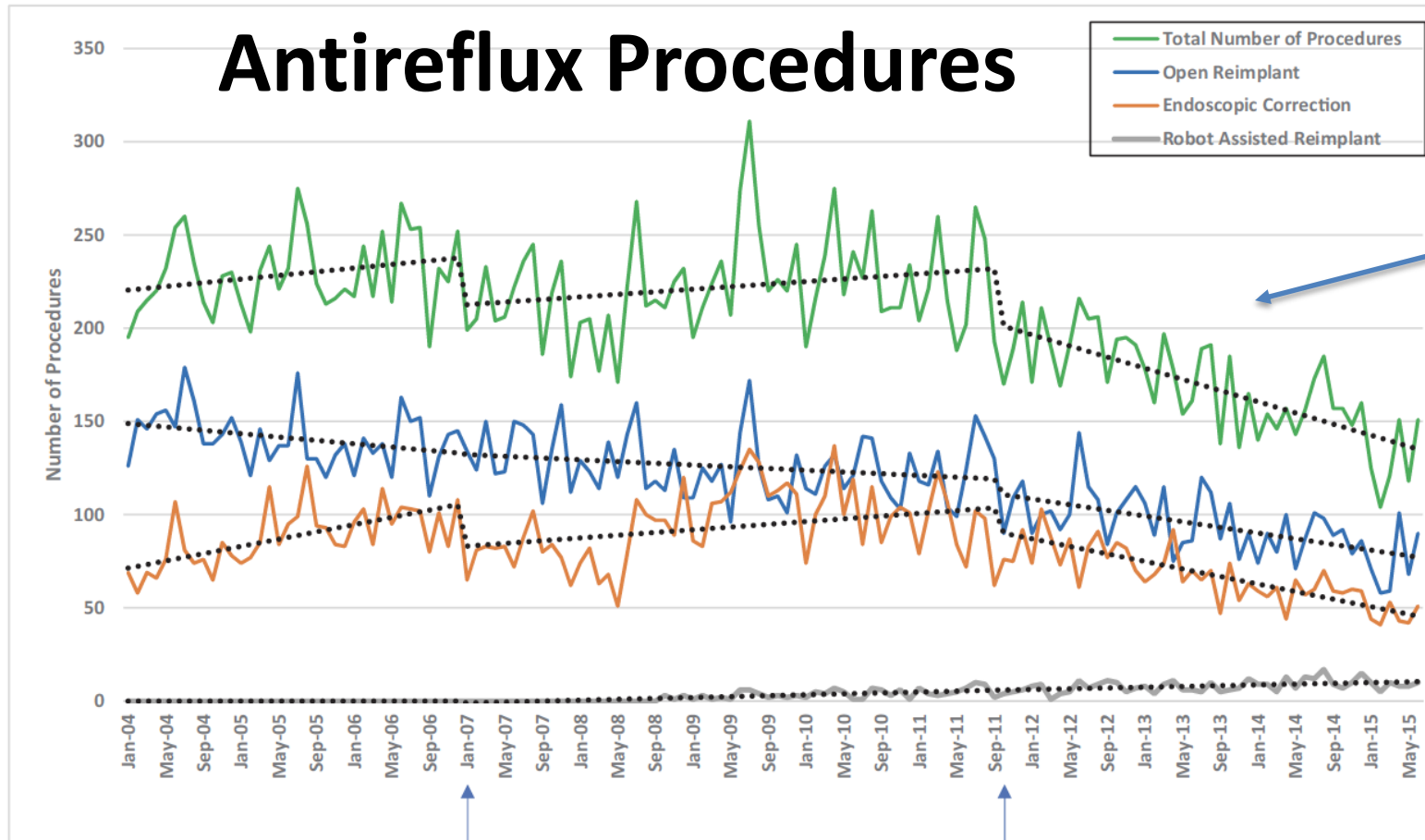
# National Trends in the Management of Primary Vesicoureteral Reflux in Children



Sudden decrease  
in VCUG orders;  
new steady state  
afterward



# National Trends in the Management of Primary Vesicoureteral Reflux in Children



Slow, steady decrease in treatment of primary VUR after guideline release



# National Trends in the Management of Primary Vesicoureteral Reflux in Children

- **Powerful association between guidelines and diagnostic studies**
- More gradual impact on surgical procedures
- PHIS may not be ideal (inpatient, ambulatory surgery, emergency department and observation unit patient encounters) but impact is clear



# Reduction and standardization of surgical instruments in pediatric inguinal hernia repair



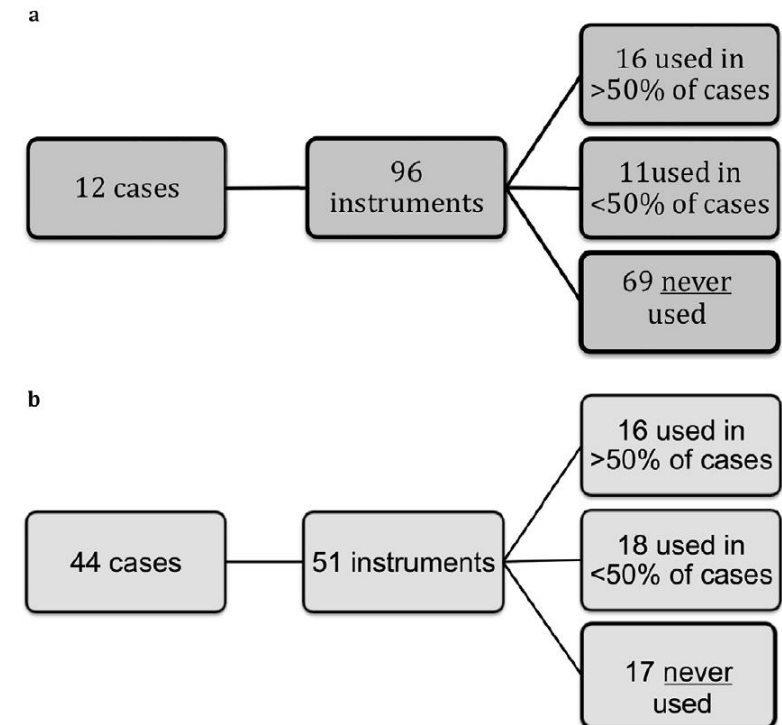
- Authors set out to reduce surgical instrumentation by >25%
- Urology AND Pediatric Surgery
- >12 surgeons
- >32 nurses
- Can they do it?



# Reduction and standardization of surgical instruments in pediatric inguinal hernia repair



- Began with observation
  - 12 pediatric urology cases
  - 44 general surgery cases
  - Urology had 96(!) instruments of which 69 were never used
  - General surgery had 51, of which 17 were never used





# Reduction and standardization of surgical instruments in pediatric inguinal hernia repair



- Measured
  - Tray weights
  - Cycle time: how long it takes to prepare a sterile tray – rinse, sterilize, repack
    - Timing the same central supply worker to reduce variability
- Surveys for all participants



# Reduction and standardization of surgical instruments in pediatric inguinal hernia repair



- Phase 1: Presentation, Survey all participants
  - *The study team met weekly to discuss collected data, and to assure that ongoing, frequent informal interaction with all stakeholders took place to update them of findings and invite their input*
  - Developed a tray of instruments used in >50% of cases
- Phase 2: Use the trays. Measure. Old trays on standby

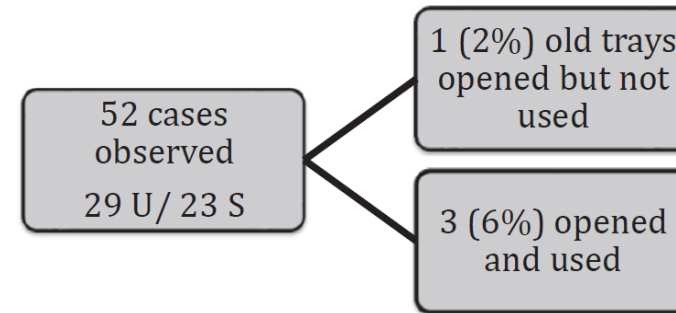




# Reduction and standardization of surgical instruments in pediatric inguinal hernia repair



- New tray = 28 instruments
- Results:



- New tray cycle time = 5 minutes
  - Formerly was 8 minutes for general surgery, 11 minutes for urology tray



# Reduction and standardization of surgical instruments in pediatric inguinal hernia repair




- Achieved through a PDSA (plan, do, study, act) cycle
- Authors address additional challenges. Not ideal for:
  - Teenagers
  - Two-incision orchidopexies
  - more peel packs available

Table 2 Post-standardization survey as to perception of post-standardization tray on actual practice and to ascertain need for additional instruments.

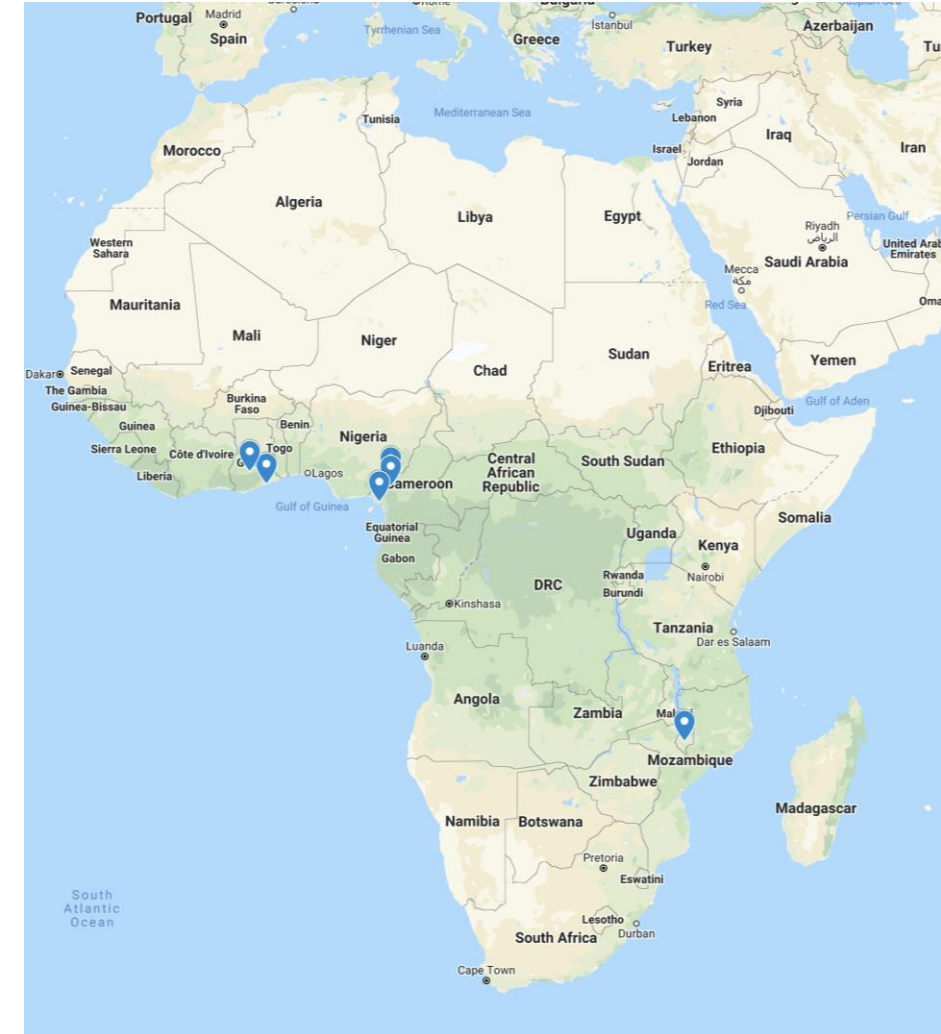
Compared with unstandardized (old) tray, how would you rate the standardized (new) tray?	No difference	Better	Worse (prefer old tray)
Nurses (32)	3%	91%	6%
Surgeons (12)	33%	60%	7%
Do you routinely require additional instruments that are not available on new tray?		Yes 9%	No 91%
If you answered yes, are they readily available?		100%	0



# Improved outcome at end of treatment in the collaborative Wilms tumour Africa project

Trijn Israels<sup>1,2</sup>  | Vivian Paintsil<sup>3</sup> | Dalida Nyirenda<sup>4</sup> | Francine Kouya<sup>5</sup> |  
Glenn Mbah Afungchwi<sup>6</sup> | Peter Hesselning<sup>7</sup> | Clara Tump<sup>8</sup> | Gertjan Kaspers<sup>1,9</sup> |  
Liz Burns<sup>10</sup> | Ramandeep Singh Arora<sup>11</sup> | George Chagaluka<sup>4</sup> | Philippa Nana<sup>5</sup> |  
Lorna Renner<sup>12\*</sup> | Elizabeth Molyneux<sup>4\*</sup>

- Malawi (Blantyre), Cameroon (Mbingo, Banso, Mutengene) and Ghana (Accra and Kumasi)
- 109 Pediatric urologists by the 2015 AUA census



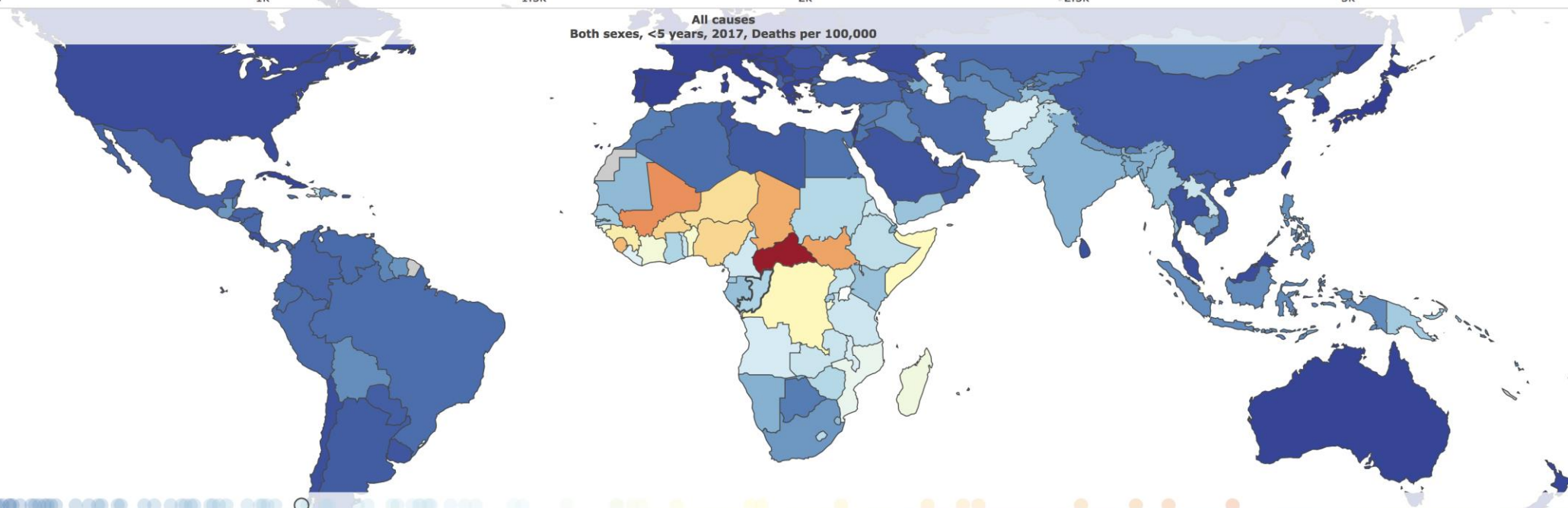


Kidney cancer  
Both sexes, <5 years, 2017, Deaths per 100,000



500 1k 1.5k 2k 2.5k 3k 3.5k

All causes  
Both sexes, <5 years, 2017, Deaths per 100,000



500 1k 1.5k 2k 2.5k 3k 3.5k

Improved outcome at end of treatment in the collaborative  
Wilms tumour Africa project

- The Collaborative Wilms Tumour (WT) Africa Project implemented an adapted WT treatment guideline in sub-Saharan Africa as a multi-center prospective clinical trial
- Collaborative project aimed to **reduce both treatment abandonment and death during treatment to less than 10% for improving survival**
- Outcomes at 2 years





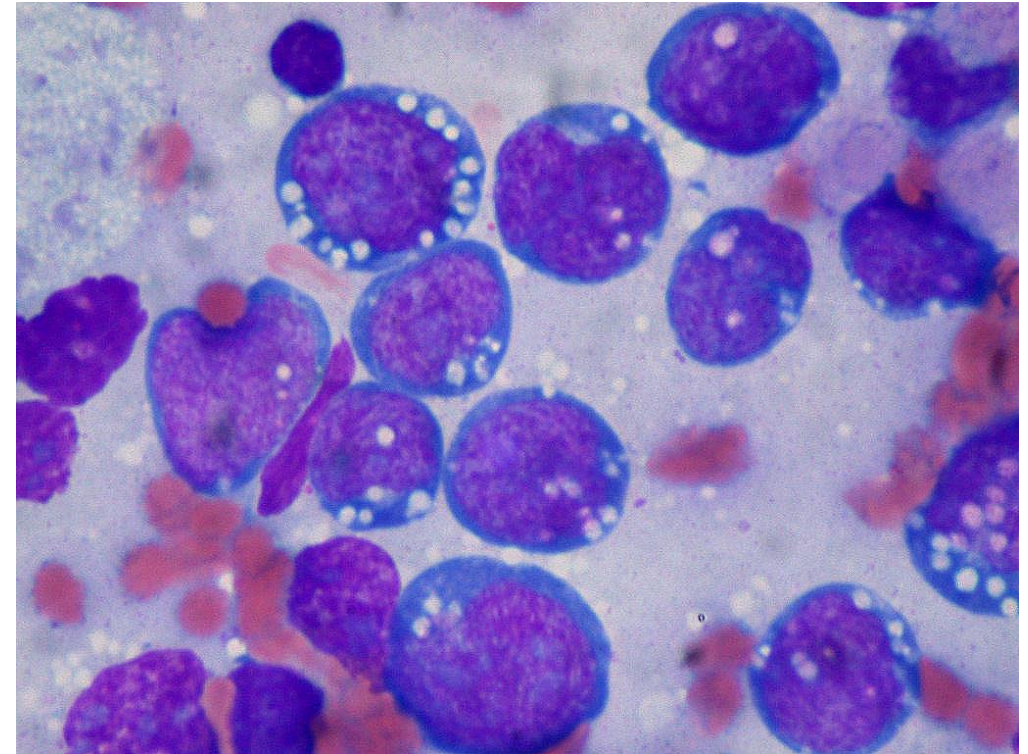
Improved outcome at end of treatment in the collaborative  
Wilms tumour Africa project

- 1. Less toxic chemotherapy** (lower dose doxorubicin)
- 2. Chemotherapy stratification, avoiding radiation**
- 3. “Simple intervention”**
  - free treatment for poor families to enable them complete treatment*
  - social support, which included meals for patients and travel costs*
  - if possible, a place to stay for poor families*



Improved outcome at end of treatment in the collaborative  
Wilms tumour Africa project

- Unique challenges
- 10% of patients initially enrolled did NOT have a Wilms tumor after surgery
  - Due to poorer quality sonography
  - Burkitt lymphoma was the true diagnosis in half of those initially misdiagnosed with Wilms



## Improved outcome at end of treatment in the collaborative Wilms tumour Africa project

	All centres	
	2011-2012	2014-2015
Alive, no evidence of disease	63 (52%)	90 (68%), $P = 0.01$
Abandonment of treatment	28 (23%)	17 (13%) $P = 0.03$
Death during treatment	26 (21%)	17 (13%) $P = 0.07$
Persistent disease or relapse	5 (4%)	8 (6%) N.S.
Death other cause	0 (0%)	1 (1%), N.S.
Total	122 (100%)	133 (100%)



# Burnout in Urology: Findings from the 2016 AUA Annual Census

Amanda C. North,\* Patrick H. McKenna, Raymond Fang, Alp Sener, Brian Keith McNeil, Julie Franc-Guimond, William D. Meeks, Steven M. Schlossberg, Christopher Gonzalez and J. Quentin Clemens



Bullitt, Warner Bros. 1968



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### *Triad of*

- ***Emotional exhaustion:*** *feeling emotionally overextended and exhausted by one's work*
- ***Depersonalization:*** *an unfeeling and impersonal response toward recipients of one's service, and*
- ***Decreased sense of personal accomplishment:*** *decreased feelings of competence and successful achievement in one's work*







## Burnout in Urology: Findings from the 2016 AUA Annual Census

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### Methods

- AUA Annual Census – 18.9% Response Rate (US Urologists)

### **MBI-Human Services Survey for Medical Personnel**

1. I feel emotionally drained from my work.
2. I have accomplished many worthwhile things in this job.
3. I don't really care what happens to some patients.





## Burnout in Urology: Findings from the 2016 AUA Annual Census

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- **38.8% of responding urologists reported burnout**
- **Mid-career urologists** were at highest risk
- No racial, ethnic, gender differences
- Working less hard appears to be protective
  - Seeing fewer than 50 patients per week
  - Working under a 40-hour week
- Pediatric urology has the *lowest* rate of burnout (25%)



# Good news?

Amanda C. North,\* Patrick H. McKenna, Raymond Fang, Alp Sener, Brian Keith McNeil, Julie Franc-Guimond, William D. Meeks, Steven M. Schlossberg, Christopher Gonzalez and J. Quentin Clemens

- Previous reports in the AMA had suggested a 63.6% rate of burnout for urologists
  - This report is far lower
- Being a pediatric urologist is protective
- “Perhaps working with a specialized population helps physicians retain meaning in their work, with loss of meaning in one’s work a contributing factor for burnout.”





# Not good news

Amanda C. North,\* Patrick H. McKenna, Raymond Fang, Alp Sener, Brian Keith McNeil, Julie Franc-Guimond, William D. Meeks, Steven M. Schlossberg, Christopher Gonzalez and J. Quentin Clemens



**Under the Wave off Kanagawa** (c1830-1832)  
Katsushika Hokusai (c1830-1832)

AMA study found a 41% rate  
of burnout in 2011  
→ Prevalence of burnout has  
increased by >50%

CUAJ JAUC

I didn't think it could (would) happen to me

Martin A. Koyle



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# Discrepancies in Self-Reported and Actual Conflicts of Interest for Robotic Pediatric Urological Surgery



Masaya Jimbo, Candace F. Granberg, Tijani S. Osumah, Jathin Bandari, Glenn M. Cannon, Jonathan C. Routh and Patricio C. Gargollo\*†

- Literature search 2013 onward of pediatric urology articles using Intuitive Surgical robotic platform
- Examined authors COI disclosures vs Open Payments in CMS
- Analyzed 107 articles remained (267 distinct authors)





# Discrepancies in Self-Reported and Actual Conflicts of Interest for Robotic Pediatric Urological Surgery



Masaya Jimbo, Candace F. Granberg, Tijani S. Osumah, Jathin Bandari, Glenn M. Cannon, Jonathan C. Routh and Patricio C. Gargollo\*†

- 86 (80.4%) had at least 1 author with a history of payment from Intuitive Surgical
  - Of these, 92% did **not** declare their COI
- Average payment of \$3,594.15
- Articles with a first and/or last author with a history of payment **were more likely to contain a favorable endorsement** of robotic surgery



# Receiving Industry Payments is Associated with Prescribing Habits of Tadalafil

Kevin J. Chua,\* Gen Li, Peter J. Stahl and Elias S. Hyams

UROLOGY PRACTICE  
Vol. 6, 282-288, September 2019

CI 3.67–5.50,  $p < 0.001$ ) but not for urologists ( $p = 0.922$ ). Urologist prescription was not associated with increasing payment amount or greater number of payments. For primary care physicians there was an association of prescribing tadalafil with increasing payment amount (OR 1.01, 95% CI 1.00–1.02,  $p = 0.02$ ) and increasing number of payments (OR 1.15, 95% CI 1.03–1.28,  $p = 0.01$ ). There were weak but statistically significant correlations between claim count and payment amount for urologists and primary care physicians ( $r = 0.063$  and  $r = 0.1$ , respectively,  $p < 0.05$ ).



# Assessment of Conflicts of Interest in Robotic Surgical Studies

## *Validating Author's Declarations With the Open Payments Database*

*Sunil V. Patel, MD, MSc,\*†‡ David Yu, MD,\* Basheer Elsolh, MD,†  
Ben M. Goldacre, MD, MSc,‡ and Garrett M. Nash, MD, MPH§*

**Results:** A total of 458 studies (2253 authors) were included. Approximately, 240 (52%) studies had 1 or more author receive undeclared payments and included 183 where “no COI” was explicitly declared, and 57 with no declaration statement present. Moreover, 21% of studies and 18% of authors with a COI declared it so in a COI statement. Studies that had undeclared payments from Intuitive were more likely to recommend robotic surgery compared with those that declared funding (odds ratio 4.29, 95% confidence interval 2.55–7.21).





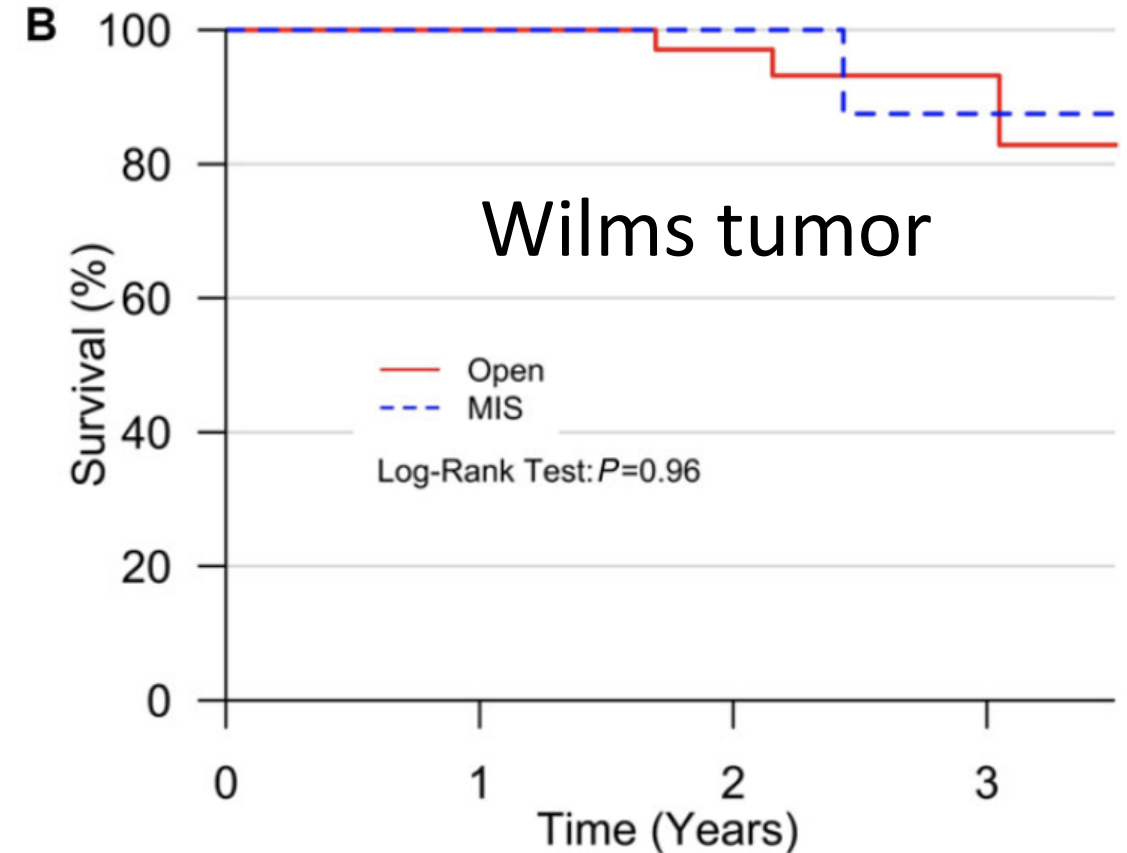
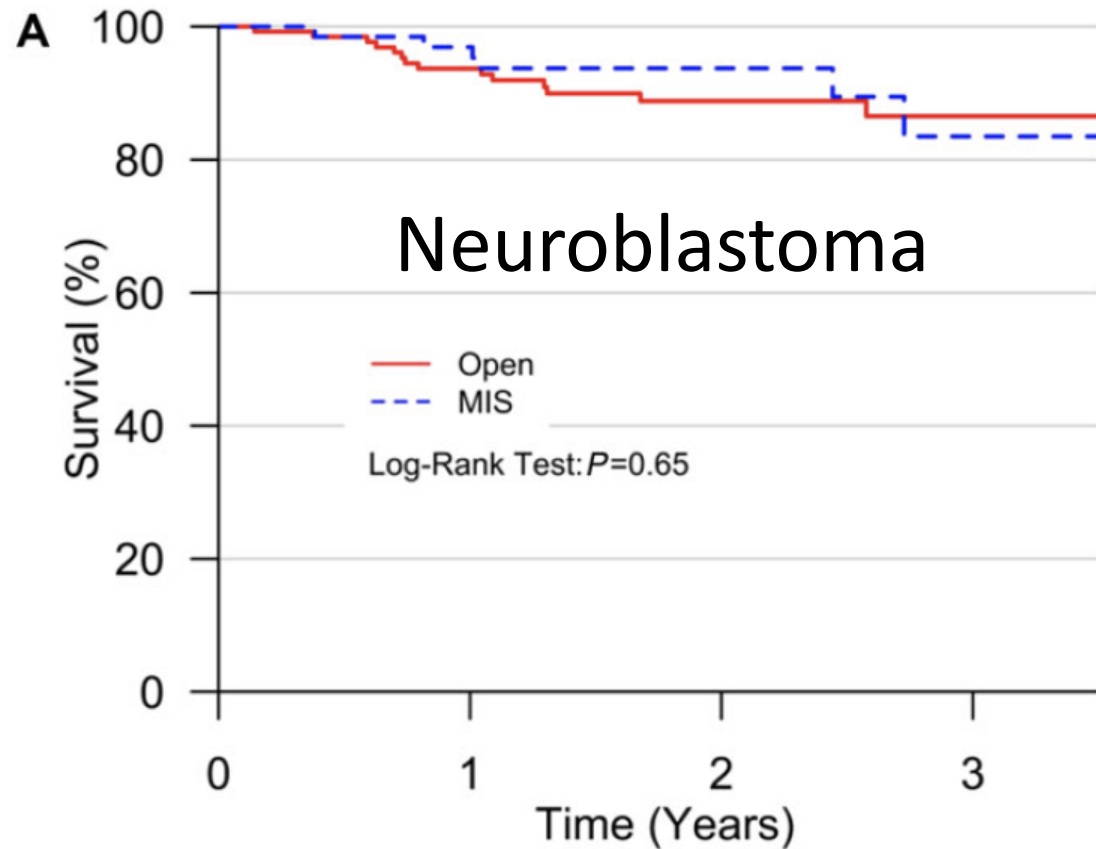
## Comparing oncologic outcomes after minimally invasive and open surgery for pediatric neuroblastoma and Wilms tumor



- Compared open and MIS approaches for pediatric neuroblastoma and Wilms tumor
- National Cancer Data Base from 2010 to 2012
- Cases of neuroblastoma and WT in children  $\leq 21$  years old.
- 17% (98 of 579) underwent MIS, **while only 5% of children with WT (35 of 695) had an MIS approach for tumor resection.**



# Propensity matched survival curves





# Most influential of all

## Oral Antibiotic Exposure and Kidney Stone Disease

Gregory E. Tasian,<sup>1,2,3</sup> Thomas Jemielita,<sup>4</sup> David S. Goldfarb,<sup>5</sup> Lawrence Copelovitch,<sup>6</sup>  
Jeffrey S. Gerber,<sup>2,3,7</sup> Qufei Wu,<sup>3</sup> and Michelle R. Denburg<sup>2,3,6</sup>

(<2% of cohort age <20 years)



? About this Attention Score

In the top 5% of all research outputs scored by Altmetric

MORE...

Mentioned by



Citations



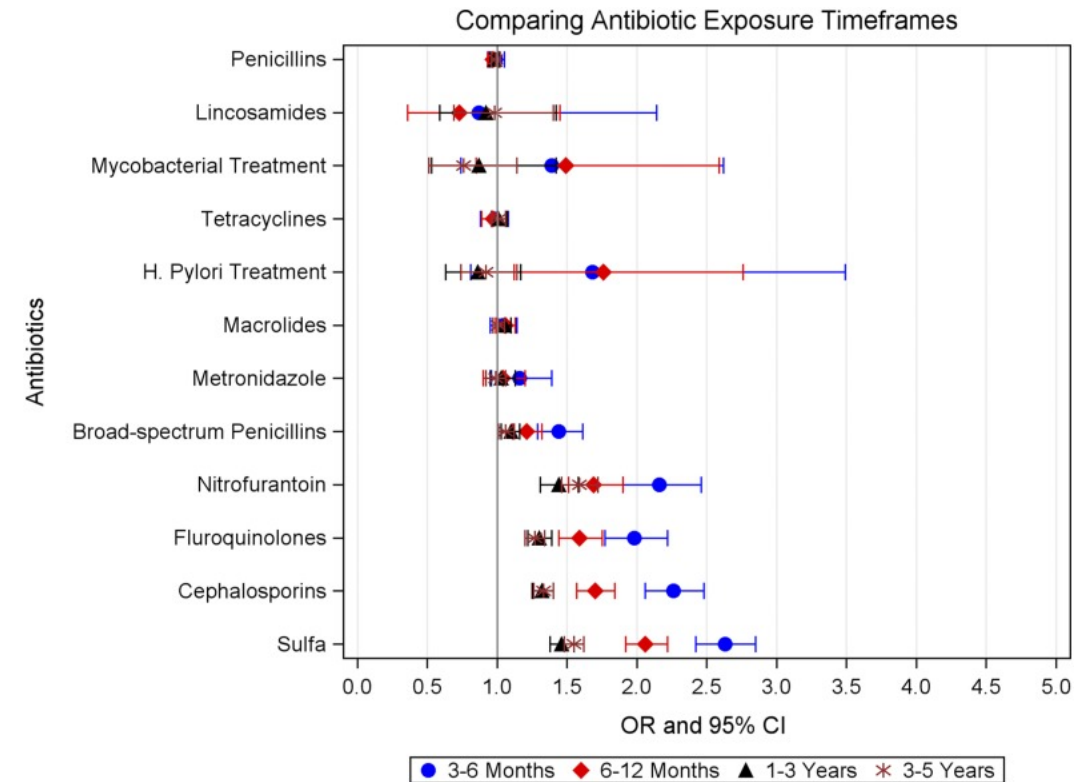
Readers on



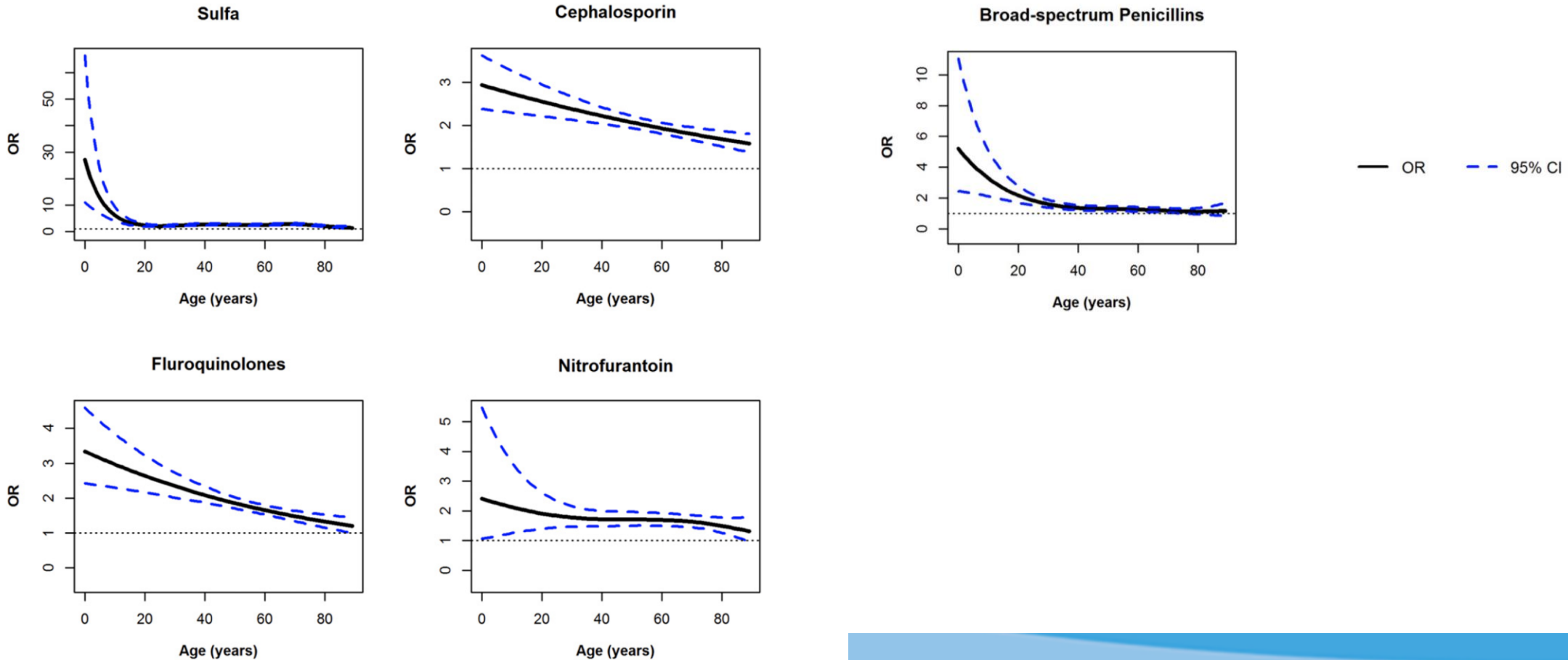
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# Oral antibiotic exposure and kidney stone disease

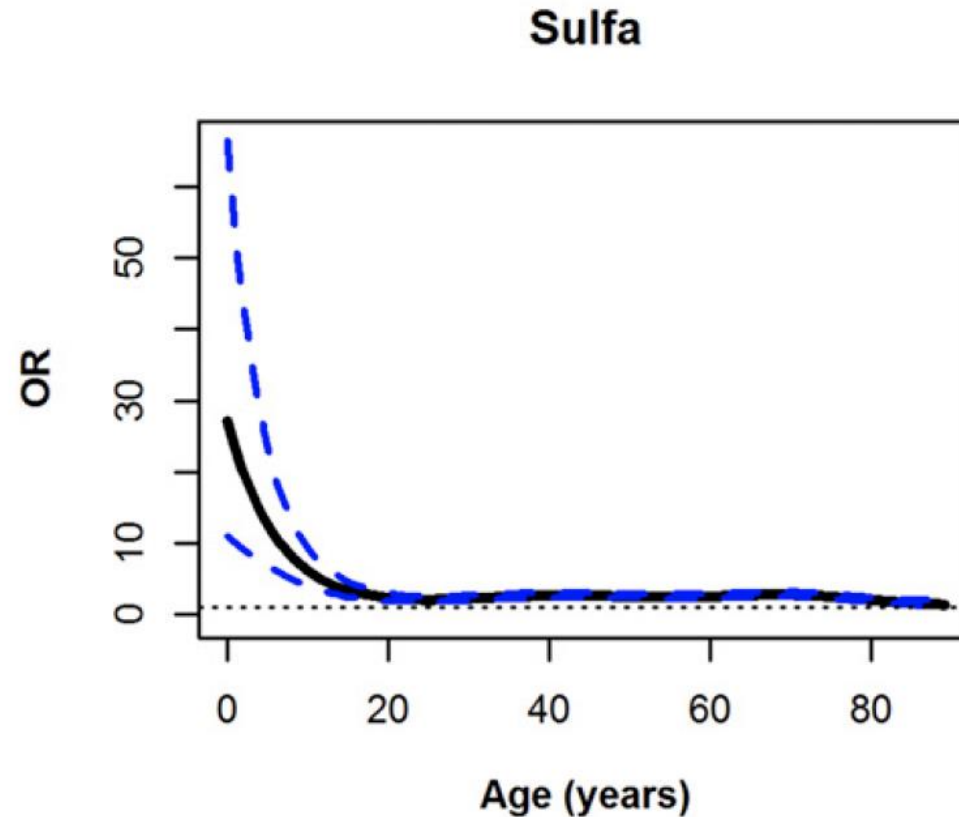
- Association between 12 classes of oral antibiotics and nephrolithiasis in a population-based case-control study
- 13 million children and adults from 1994 to 2015 in the United Kingdom



# Younger age of Abx → Higher odds stone formation



# Sulfa drugs, younger age, recent exposure ...



# Sulfa drugs, younger age, recent exposure ...



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Sulfa drugs, younger age, recent exposure ...

*The* NEW ENGLAND  
JOURNAL *of* MEDICINE

ESTABLISHED IN 1812

JUNE 19, 2014

VOL. 370 NO. 25

Antimicrobial Prophylaxis  
for Children with Vesicoureteral Reflux



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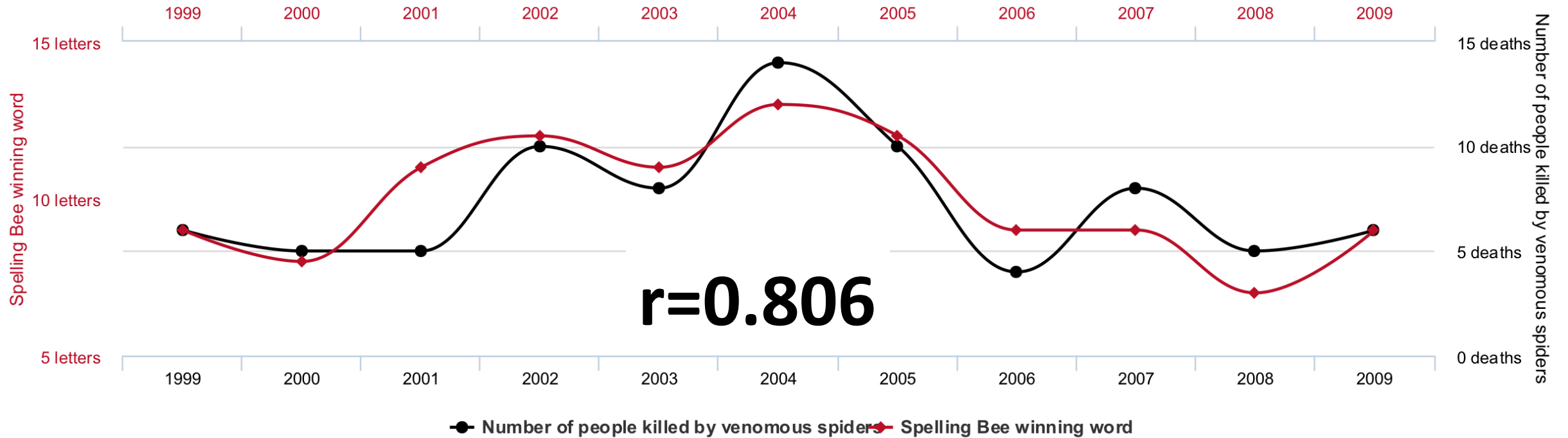


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# Letters in Winning Word of Scripps National Spelling Bee

correlates with

## Number of people killed by venomous spiders



tylervigen.com



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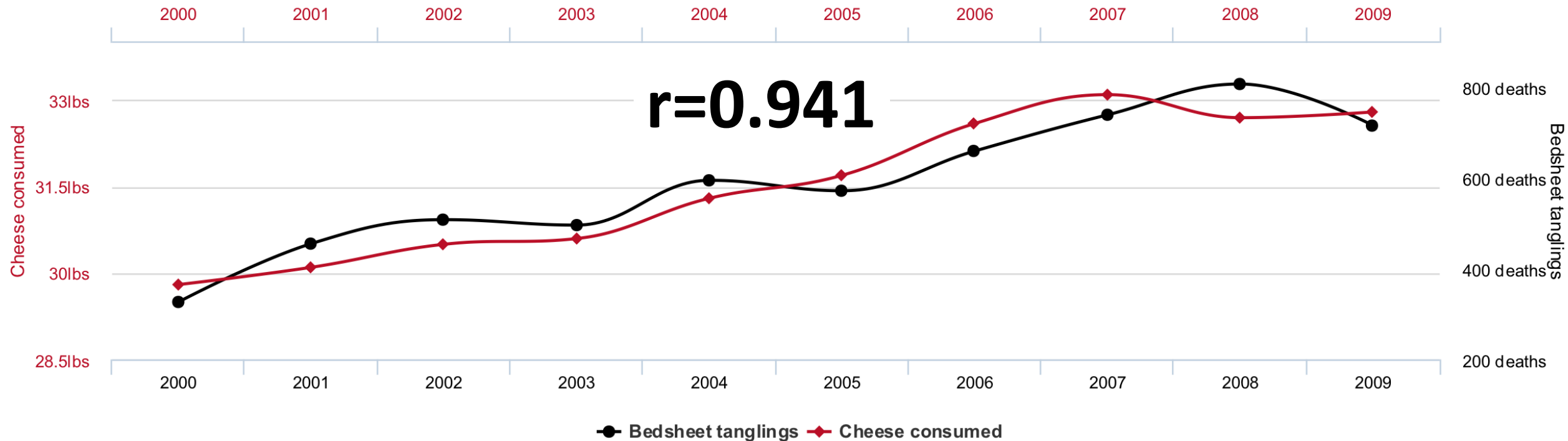


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## Per capita cheese consumption

correlates with

## Number of people who died by becoming tangled in their bedsheets



tylervigen.com



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# This effect is *real*

- ✓ Biologically plausible
- ✓ Exceptional epidemiologic methods (very well controlled)
- ✓ Temporal relationship is strong
- ✓ Seen across many agents
- ✓ Let's see what the microbiome shows ...







Children's Hospital, Boston, Mass.

