When You Do (and Don't) Need a Pediatric Urologist

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Disclosures: None (sadly)

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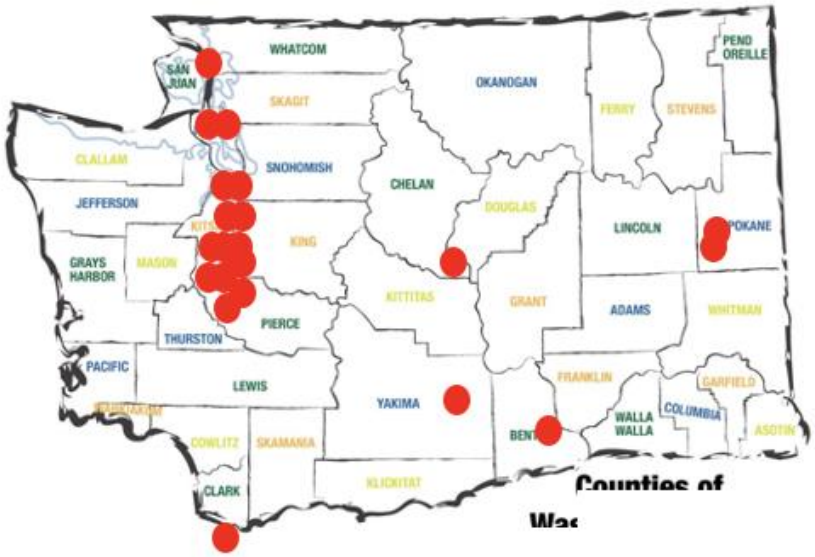
Objectives

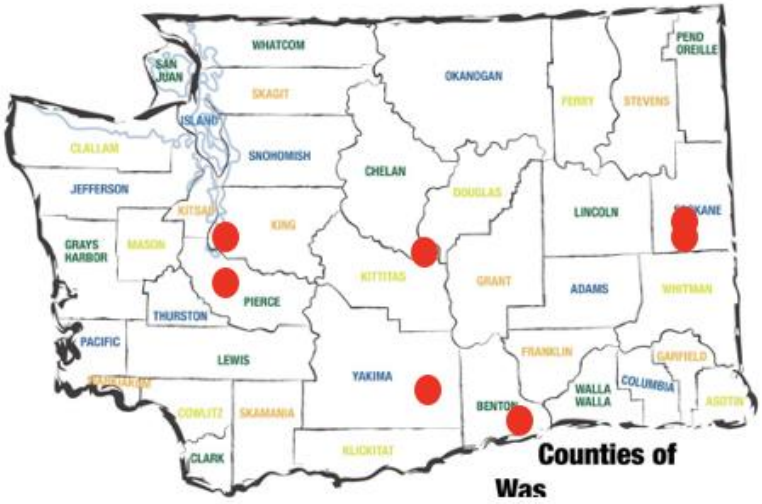
- Identify common pediatric GU concerns in primary care that warrant referral to pediatric urology

- Identify common pediatric GU concerns in primary care where initial steps can be managed by PCP

Why I Am Talking About This



Adult Urology Coverage



Who Will See Kids

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You Probably Don't Need Me

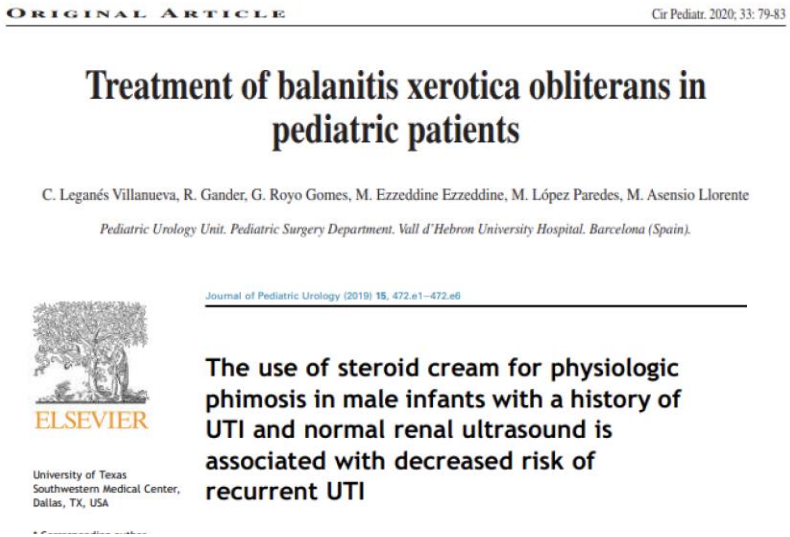
- Testicular/other genital pain
- Phimosis and penile adhesions
- Monosymptomatic nocturnal enuresis

My (Insert Name of Genitals) Hurts…. Now What?

- Very frequent cause of referrals to pediatric urology (maybe #1)
- Very distressing for parents and caregivers
- Need a good history on frequency, duration, exacerbating/ ameliorating factors, intensity, character

Penile Adhesions and Phimosis

- Thin penile adhesions after circumcision are likely due to penile configuration and/or fat pad
  - Apply regular gentle traction; they usually improve with penile growth and loss of fat pad



ORIGINAL ARTICLE Cir Pediatr. 2020; 33: 79-83

Treatment of balanitis xerotica obliterans in pediatric patients

C. Leganés Villanueva, R. Gander, G. Royo Gomes, M. Ezzeddine Ezzeddine, M. López Paredes, M. Asensio Llorente

Pediatric Urology Unit. Pediatric Surgery Department. Vall d'Hebron University Hospital. Barcelona (Spain).

Journal of Pediatric Urology (2019) 15, 472.e1–472.e6

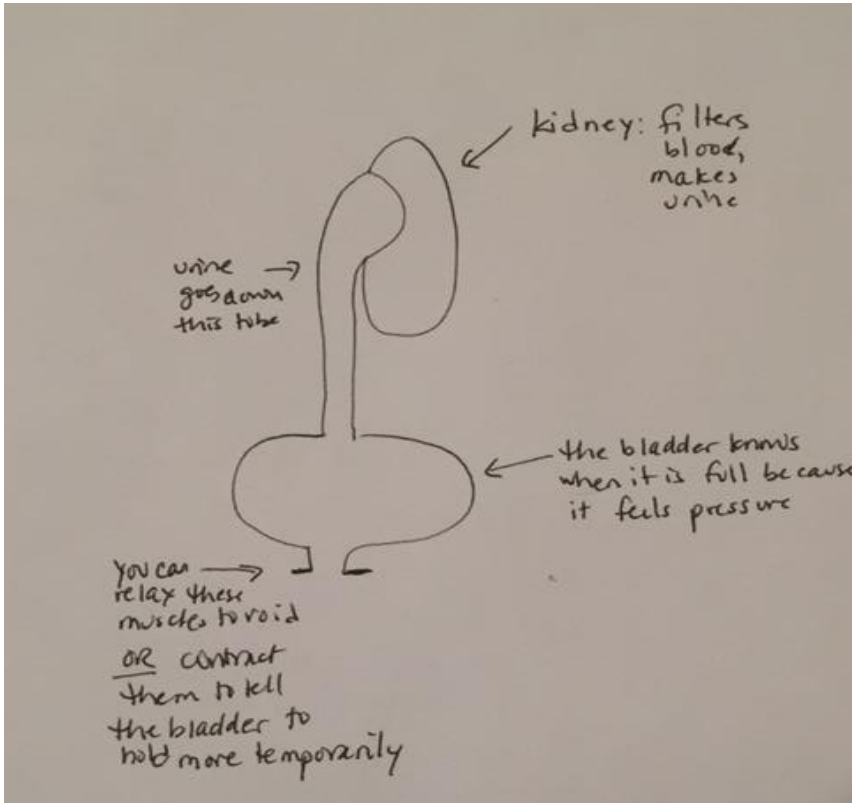
ELSEVIER

The use of steroid cream for physiologic phimosis in male infants with a history of UTI and normal renal ultrasound is associated with decreased risk of recurrent UTI

University of Texas Southwestern Medical Center, Dallas, TX, USA

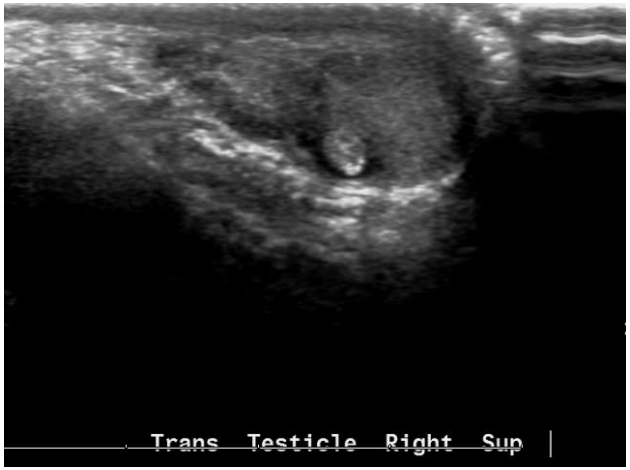
Musculoskeletal Concerns/Elimination Dysfunction

- Nerves to genitals run directly adjacent to bladder and rectum
- Typically “burning” pain at tip of penis or in alternating or both testicles



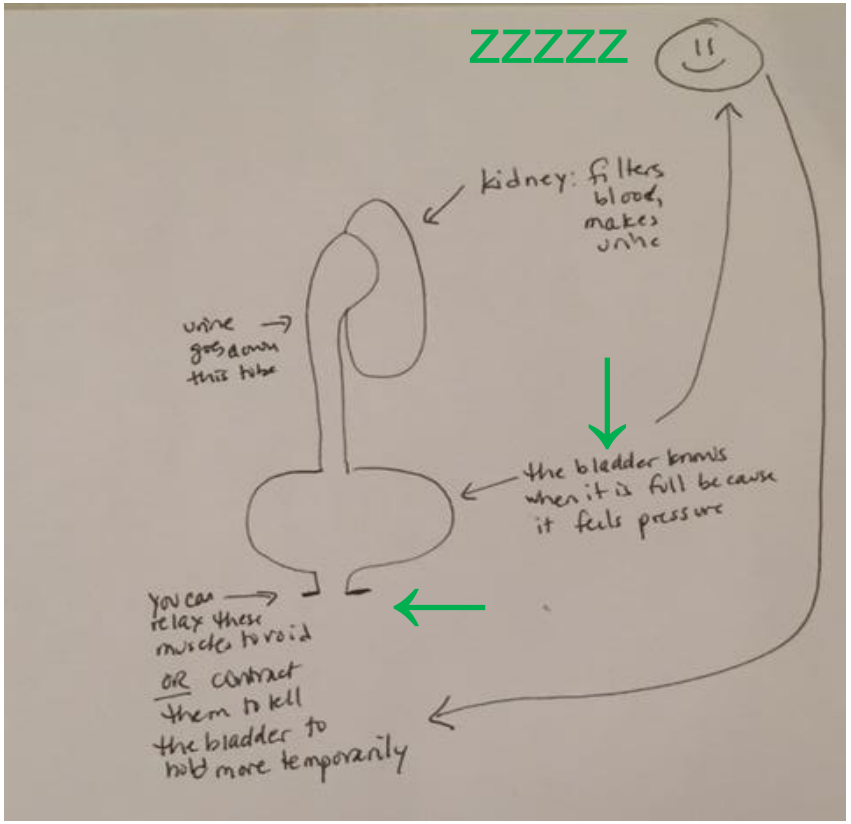
Differential Diagnosis of Testicular Pain

- Hernia
- Intermittent or acute testicular torsion
- Torsion of appendices testis or epididymis
- Voiding concerns
- Varicocele
- Urolithiasis



Bedwetting Questions

- Ask about daytime elimination habits and fluid intake
- Ask about poop
- Ask about sleep habits (time, duration, quality)

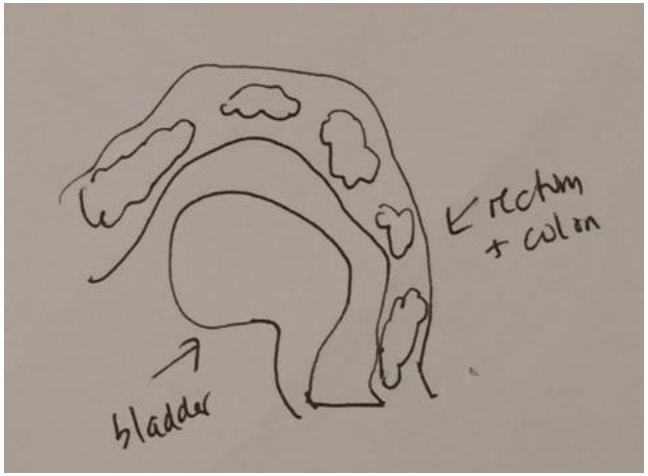


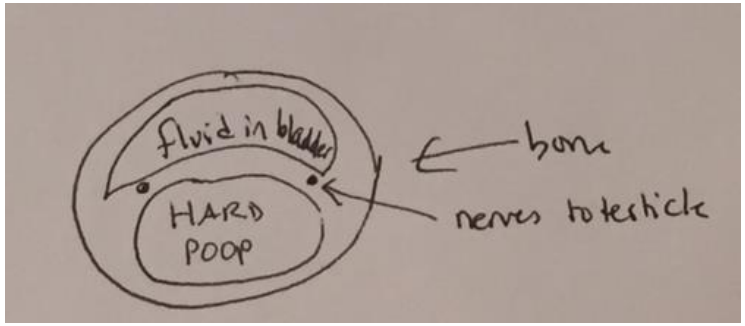
Urinalysis

- Infection? Asymptomatic bacteriuria? Contamination?
- Glucosuria: occult diabetes mellitus
- Urinary concentrating ability (first morning urine)
- Hematuria (most common cause of microhematuria in children without apparent structural anomalies is voiding issues)—look at microscopic analysis

Ask About Poop!

- Problem: the pelvis is made of bone and won't expand
- If there is something in the pelvis, it will push on the bladder
- Since there are consistent "need to void" messages, these stimuli are not unique and meaningful





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Children's version of the Bristol Stool Chart

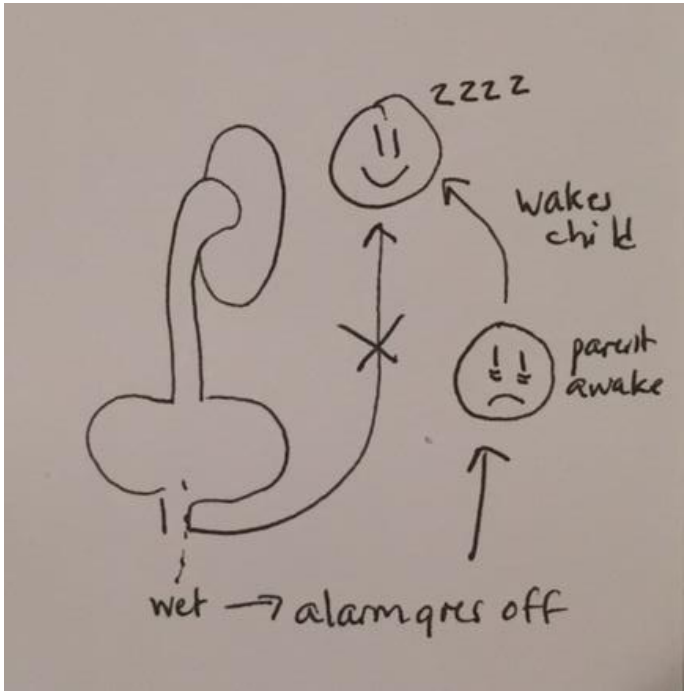
Behavioral Modification

- 30-50% of patients will improve with timed voiding alone (but one-third will recur within a year)
- Up to 88% of patients will improve with a regimen combining timed voiding, modification of fluid intake, pelvic-floor exercises, and voiding diaries
- Medical therapy is thus an adjunct to, rather than a replacement for, behavioral modification

Sillen et al, 2010

Bedwetting Alarms

- Work on the Pavlovian operant conditioning principle
- Since child is a deep sleeper, parents must wake child entirely
- Most effective when elimination habits optimized



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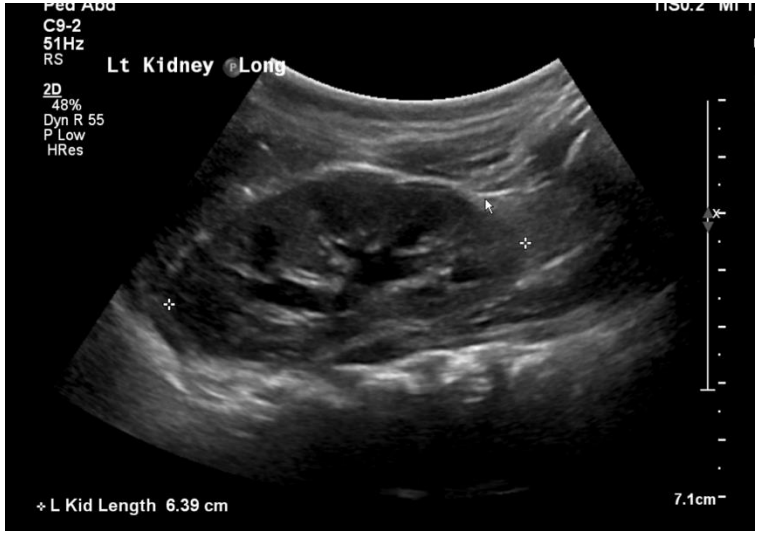
You Probably Need Me

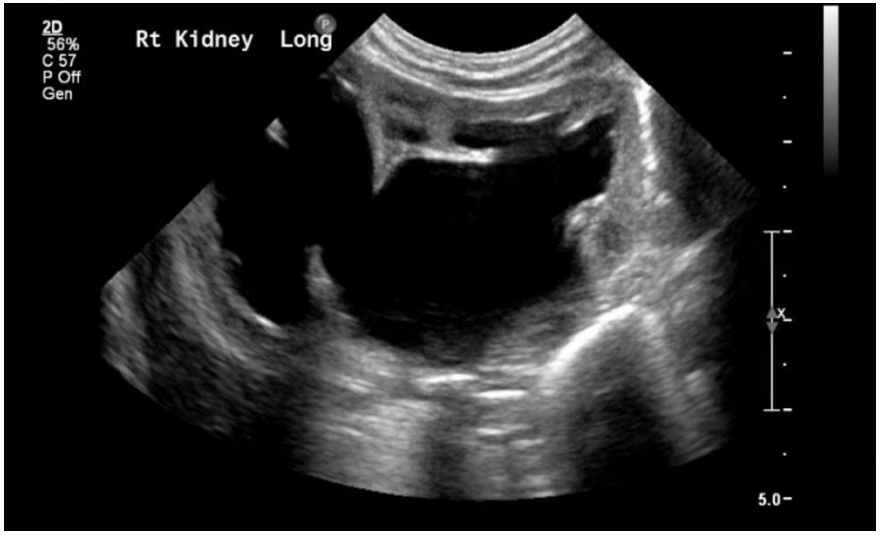
- Severe upper tract dilatation
- Varicoceles
- Daytime and nighttime incontinence that is not responding to initial measures

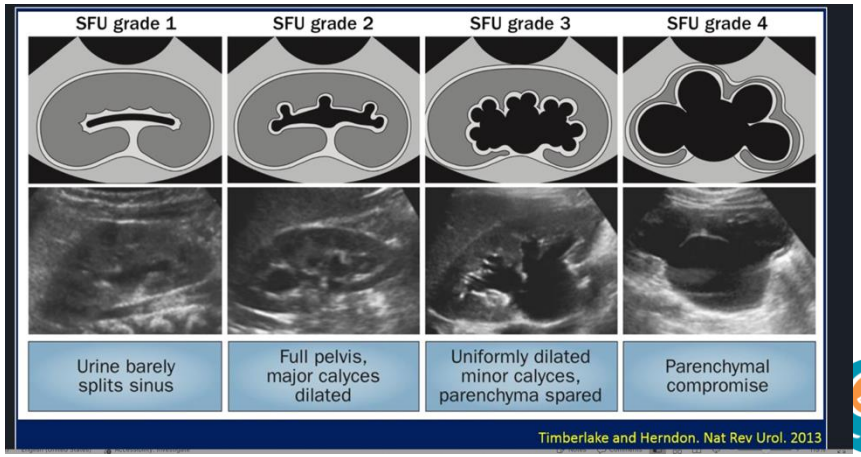
Upper Tract Dilatation: What is Significant?

UTD P1



UTD P3





CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care

American Academy of Pediatrics

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Perinatal Urinary Tract Dilation: Recommendations on Pre-/ Postnatal Imaging, Prophylactic Antibiotics, and Follow-up: Clinical Report

C. D. Anthony Herndon, MD, FAAP,[1] Hansel J. Otero, MD, FAAP,[2] David Hains, MD, FAAP,[3] Rebecca M. Sweeney, MD, FAAP,[4] Gina M. Lockwood, MD, MS, FAAP,[5] and the Section on Urology, Section on Nephrology, Section on Radiology, and Section on Hospital Medicine

dicine
EDICINE

If You Need Additional Imaging, You Probably Need Me!

UTD Classification	Definition	Initial Postnatal US	Urology/Nephrology Consultation
Incomplete or Unclear Classification		Follow postnatal evaluation similar to UTD A1	Follow postnatal evaluation similar to UTD A1
Resolved at Last Prenatal Ultrasound		If prior US were all A1 --> No postnatal evaluation or surveillance required	
		If any prior US was A2-3 --> Manage according to recommendations for "Increased Risk (A2-3)" below.	
Low Risk (A1)	≥ 28 weeks APD 7 to <10 mm **AND/OR** central calyceal dilation	≥48 hrs to 6 weeks of age Need not delay discharge*	May consider with outpatient follow-up
Increased Risk (A2-3)	≥ 28 weeks APD ≥10 mm **OR** any abnormal parameter (except central calyceal dilation)	Prior to discharge. Ideally after 48 hr of life.	Recommended prior to discharge

The ultrasound should be prioritized and can either be ordered prior to discharge or at the first primary care visit to allow for imaging within 4-6 weeks of life.

FIGURE 5.
Suggested Subsequent POSTNATAL Management Based Upon Antenatal Ultrasound.

UTD Classification	Definition/Circumstance	Follow-Up Ultrasound (2nd Postnatal Ultrasound)	Antibiotic Prophylaxis	VCUG/ceVUS	MAG3/fMRU	Urology/Nephrology Consultation
Resolved		3-9 month of age	Not recommended	Not recommended	Not recommended	Not recommended
Low Risk (P1)	APD 10 to <15 mm **AND/OR** central calyceal dilation	3-6 months of age	Not recommended	Not recommended	Not recommended	Outpatient
Intermediate Risk (P2)	APD ≥15 mm **AND/OR** peripheral calyceal dilation	1-3 months of age	Use shared decision making to determine use	Use shared decision making to determine need	Use shared decision making to obtain at >6 weeks of age	Inpatient consult or expedited outpatient referral
	Ureteral dilation ≥7 mm	1-3 months of age	Recommended	Recommended within 1-3 months of age	Use shared decision making to obtain at >6 weeks of age	Inpatient consult or expedited outpatient referral
High Risk (P3)	Findings in P2 **AND** abnormal parenchymal thickness **or** appearance **or** abnormal bladder	1 month of age	Recommended	Recommended within 1-3 months of age	Recommended at >6 weeks of age.	Inpatient consult or expedited outpatient referral

fMRU indicates functional magnetic resonance urography.

Features / Imaging Modality	Anatomy versus Function	Anatomy Assessed: Kidneys	Bladder	Ureters	Urethra	Duration (min)	Prep S/H/UC	Ionizing radiation (Yes/No)	Nephrotoxic (Yes/No)	Relative cost
Ultrasound	Anatomy	Yes	Yes	Only if abnormal	Yes	30	None	No	No	$
VCUG	Anatomy	Collecting systems (if reflux)	Yes	Yes (if reflux)	Yes	30	UC	Yes	No	$$
ceVUS	Anatomy	Collecting systems (if reflux)	Yes	Yes (if dilated or reflux)	Yes	30	UC	No	No	$$
MAG 3 diuretic renography	Function	Renal function	No	No	No	90	H/UC	Yes	No	$$$
MR Urography	Anatomy & Function	Anatomy & function	Yes	Yes	Yes	60	S/H/UC	No	No**	$$$$

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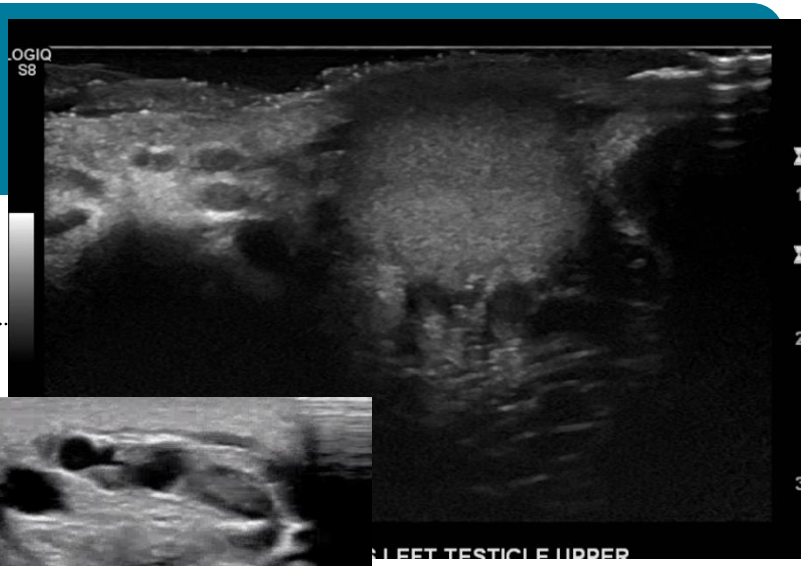
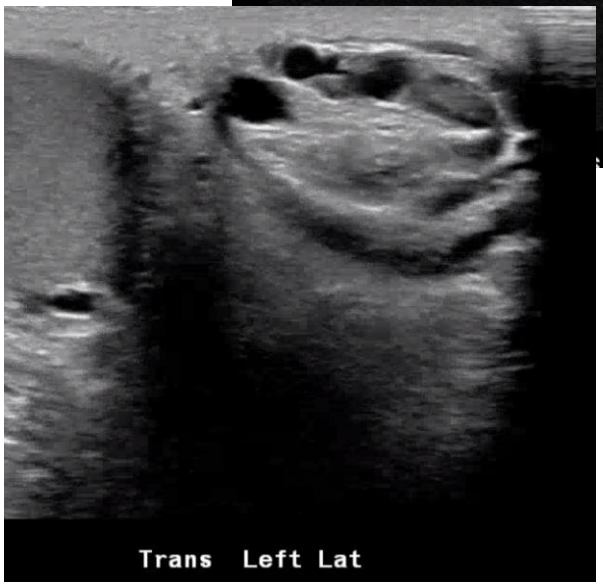
Varicoceles





- More common on left because of drainage pattern of left renal vein
- Consider repair for testicular size discrepancy, semen analysis anomaly, pain
- Adult urologists recommend earlier repair than in the past (but ? data)

Journal of Pediatric Urology (2017) 13, 76.e1–76.e5

Does varicocelectomy improve semen analysis outcomes in adolescents without testicular asymmetry?

David I. Chu, Stephen A. Zderic, Aseem R. Shukla, Arun K. Srinivasan, Gregory E. Tasian, Dana A. Weiss, Christopher J. Long, Douglas A. Canning, Thomas F. Kolon

Daytime and Nighttime Enuresis

Journal of Pediatric Urology (2022) 18, 24.e1–24.e9

Comparison and characteristics of children successfully treated for daytime urinary incontinence

[a]Department of Pediatric and Adolescent Medicine, NIDO Denmark, Gødstrup Hospital,

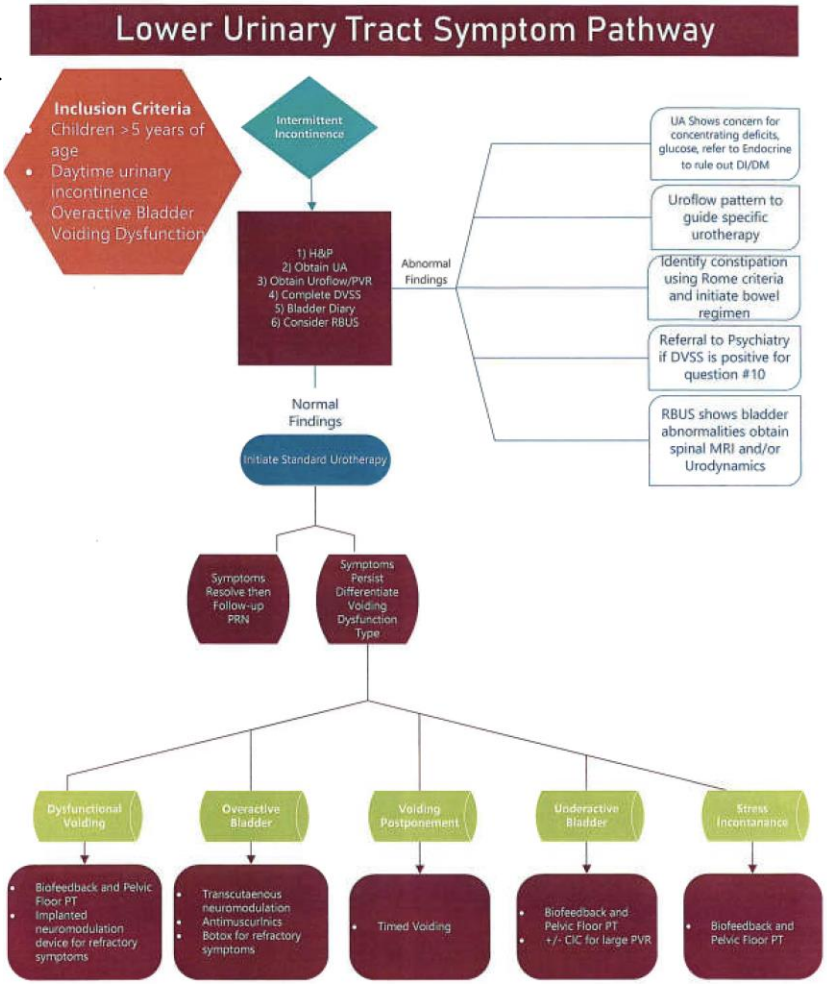
Alexander Slot Jessen [a,*], Soeren Hagstroem [b], Luise Borch [a]

Received: 22 May 2017 | Accepted: 1 June 2017
DOI: 10.1002/nau.23382

REVIEW ARTICLE

Evaluation and management of tethered cord syndrome in occult spinal dysraphism: Recommendations from the international children's continence society

Gerald F. Tuite[1] | Dominic N.P. Thompson[2] | Paul F. Austin[3] | Stuart B. Bauer[4]



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Questions?

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