

Yong R, et al. Laser access and utilization preferences for pediatric ureteroscopy: A survey of the Societies of Pediatric Urology

APPENDIX

Supplementary Fig. 1. Survey sent to members of the Societies of Pediatric Urology.

Dear Colleagues,

Thank you for the time in completing our survey. As the incidence of pediatric nephrolithiasis rises, our specialty continues to further its understanding of the surgical management of urolithiasis in children and how these cases may differ from the adult population. An understanding of current practice patterns within the SPU will help us to understand current opportunities and challenges of treatment for children with nephrolithiasis. This work may further help to plan future studies in optimizing surgical stone treatment within the pediatric realm.

Thank you again for your time (5-10 minutes) to complete our survey.

- 1) How many years have you been in practice following your training (choose one)
 - a. 0-5
 - b. 6-10
 - c. 11-15
 - d. 16-20
 - e. > 20
- 2) What is your American Urological Association section? (choose one)
 - a. Northeastern
 - b. New England
 - c. New York
 - d. Mid Atlantic
 - e. North Central
 - f. Southeastern
 - g. South Central
 - h. Western
 - i. Other (Please Specify)
- 3) Are you fellowship trained in pediatric urology? (choose one)
 - a. Yes
 - b. No
- 4) Is your practice primarily pediatric-based (i.e. children < 18 years of age)? (choose one)
 - a. Yes
 - b. No
- 5) What is your practice type? (choose one)
 - a. Academic
 - b. Community Based
 - c. Other (Please Specify)
- 6) In what type of hospital setting do you practice: (choose one)
 - a. Free-Standing Children's Hospital
 - b. Pediatric hospital within a larger hospital complex (i.e. hospital within a hospital)
 - c. Other (Please Specify)
- 7) What is the estimated yearly volume of ureteroscopy done within your pediatric group? (choose one)
 - a. 0-20 cases per year
 - b. 21-50 cases per year
 - c. 51-80 cases per year
 - d. 81-100 cases per year
 - e. >100 cases per year
- 8) What is the estimated yearly volume of shock wave lithotripsy done within your pediatric group? (choose one)
 - a. 0-10
 - b. 11-30
 - c. 31-50
 - d. 51-70
 - e. > 70
- 9) Approximately how many ureteroscopies for nephrolithiasis did you perform last year? (choose one)
 - a. 0-15
 - b. 16-30
 - c. 31-45
 - d. 46-60
 - e. > 60
- 10) Approximately what proportion of your ureteroscopic cases for elective lithotripsy require pre-stenting (either planned or unplanned) prior to treatment? (choose one)
 - a. < 20%
 - b. 21-40%
 - c. 41-60%
 - d. 61-80%
 - e. > 80%
- 11) Is the holmium laser the preferred energy source for ureteroscopic lithotripsy within your group? (choose one)
 - a. Yes
 - b. No
- 12) What is your access to holmium laser for lithotripsy? (choose one)
 - a. Own a laser
 - b. Rent a laser
 - c. Combination of ownership and rental
- 13) Do you have after-hours access to a holmium laser? (choose one)
 - a. Yes
 - b. No
- 14) Who operates the holmium laser during treatment? (choose one)
 - a. Dedicated circulating nurse
 - b. Dedicated laser technician
 - c. Other (Please Specify)
- 15) Which power range best represents the power of the holmium laser which you most frequently have access to? (choose one)
 - a. 20-40 Watts
 - b. 41-60 Watts
 - c. 61-80 Watts
 - d. 81-100 Watts
 - e. > 100
 - f. Unsure
 - g. Other (Please Specify)
- 16) Does the laser to which you most frequently have access to have differential pulse length settings (i.e. long-pulse, short-pulse)? (Note: pulse-length is different than the frequency setting for the laser?) (choose one)
 - a. Yes
 - b. No
 - c. Other (Please Specify)
 - d. Unsure
- 17) For a 1 cm renal pelvis stone in a healthy 10 year old child, your preferred ureteroscopic management is: (choose one)
 - a. Dusting
 - b. Basket extraction of larger fragments
 - c. Hybrid
- 18) What factors influence your decision making in your answer for the previous question? (choose all that apply)
 - a. Stone clearance
 - b. Duration of treatment
 - c. Avoidance of an access sheath
 - d. Avoidance of a post-operative stent
 - e. Concern for residual fragments
 - f. Limited access to a high powered laser
 - g. Concern for stasis within the urinary system
 - h. Concern for bacterial colonization of the urinary tract and/or infection-related calculi
 - i. Operative time
 - j. None of the factors (please specify others)
- 19) For a 1 cm renal pelvis stone in a healthy 10 year old child, which laser setting combination most closely approximates your preferred initial settings? (choose one)
 - a. 1.0 J, 10 Hz (10 W)
 - b. 0.2 J, 40 Hz (8 W)
 - c. 0.5 J, 5 Hz (2.5 W)
 - d. 0.5 J, 80 Hz (40 W)
- 20) For a 6 mm ureteral calculus in a healthy 10 year old child, which laser setting combination most closely approximates your preferred initial settings? (choose one)
 - a. 1.0 J, 10 Hz (10 W)
 - b. 0.2 J, 40 Hz (8 W)
 - c. 0.5 J, 5 Hz (2.5 W)
 - d. 0.5 J, 80 Hz (40 W)
- 21) For what proportion of cases do you utilize an access sheath? (choose one)
 - a. I never use an access sheath
 - b. < 25%
 - c. 26-50%
 - d. 50-75%
 - e. > 75%
- 22) What is your preferred method for irrigation during flexible ureteroscopy with lithotripsy? (choose one)
 - a. Gravity
 - b. Hand-irrigation
 - c. Pressure bag irrigation
 - d. Automatic infusion
- 23) What is the make/model of the flexible ureteroscope which you utilize most frequently? (free text)
 - a. <_____>
- 24) Within the past year, have you utilized a single-use (i.e. disposable) flexible ureteroscope in a pediatric (i.e. < 18 years of age) patient? (choose one)
 - a. Yes
 - b. No
- 25) Which type of optical visualization do you primarily utilize in pediatric flexible ureteroscopy? (choose one)
 - a. Fiberoptic
 - b. Digital
 - c. Unsure

Supplementary Table 1. Index case responses and practice preferences		
	n	%
Index case #1 – Initial laser settings		
1 J, 10 Hz (10 W)	34	35%
0.2 J, 40 Hz (8 W)	33	34%
0.5 J, 5 Hz (2.5 W)	21	22%
0.5 J, 80 Hz (40 W)	9	9%
Index case #2 – Initial laser settings		
1 J, 10 Hz (10 W)	18	19%
0.2 J, 40 Hz (8 W)	29	30%
0.5 J, 5 Hz (2.5 W)	42	43%
0.5 J, 80 Hz (40 W)	8	8%
Optical visualization		
Fiberoptic	38	39%
Digital	57	59%
Unsure	2	2%
Irrigation method		
Gravity	8	8%
Hand irrigation	51	53%
Pressure bag	35	36%
Manual pump	2	2%
Primary method of optical visualization		
Fiberoptic	37	38%
Digital	57	59%
Unsure	2	2%
Use of disposable ureteroscope within past 12 months		
Yes	25	26%
No	71	73%