



Patient-Reported Experience with Pediatric Urology Telemedicine Visits During the COVID-19 Pandemic

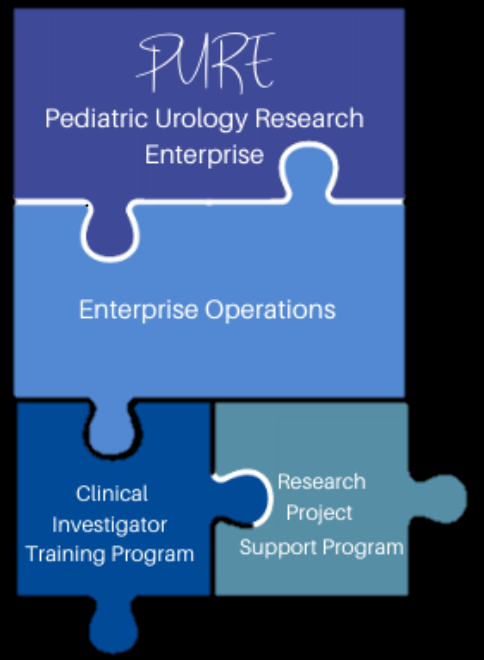
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Background

- Telemedicine has had a slow integration into surgical subspecialties like urology.
- Little data exists on telemedicine's effect on urologic patient-provider rapport nor long term clinical outcomes.
- Pediatric urologists account for only 8.3% of all practicing urologists
- Understanding feasibility and barriers specific to pediatric urology is needed especially given the recent COVID-19 pandemic.
- The purpose of this study was to assess the feasibility and parent-reported experience with telemedicine visits in a tertiary pediatric urology practice.

Methods

- Parents/guardians of pediatric urology patients who were seen via telemedicine between March 12th - October 30th, 2020, at Children's Hospital Colorado main campus and two satellite campus were contacted within 1 week of their child's telehealth visit and invited to take a brief telephone survey.

- A total of 4 yes/no questions were asked. Additionally, an open-ended question was asked to explore domains of the drawbacks and benefits to telemedicine in pediatric urology.
- Respondent/patient and visit characteristics - were analyzed descriptively for differences in response to the satisfaction questions.
- Open-ended questions were analyzed using a team-based content analysis approach.

Table 2. Survey response to questions 1-4 broken down by patient characteristic.

			Question 1		Question 2		Question 3		Question 4	
Characteristic		Total	Yes	No	Yes	No	Yes	No	Yes	No
Total		100.0% (374/374)	98.1%	1.9%	86.8%	13.2%	96.5%	3.5%	97.8%	2.2%
Sex	Female	39.3% (147/374)	97.9%	2.1%	86.2%	13.8%	94.6%	5.4%	98.6%	1.4%
	Male	60.7% (227/374)	98.2%	1.8%	87.2%	12.8%	97.8%	2.2%	97.4%	2.6%
Provider Type	APP	47.1% (176/374)	97.2%	2.8%	86.9%	13.1%	94.9%	5.1%	97.7%	2.3%
	MD	52.4% (196/374)	99.0%	1.0%	86.7%	13.3%	98.0%	2.0%	97.9%	2.1%
	PhD	0.5% (2/374)	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Insurance Type	Public	36.7% (136/374)	98.5%	1.5%	88.1%	11.9%	97.1%	2.9%	97.8%	2.2%
	Private	63.5% (235/374)	97.9%	2.1%	86.7%	13.3%	96.2%	3.8%	97.8%	2.2%
Site	Anschutz	68.0% (258/374)	98.1%	1.9%	82.5%	17.5%	95.3%	4.7%	97.6%	2.4%
	COS	16.8% (62/374)	100.0%	0.0%	100.0%	0.0%	98.4%	1.6%	100.0%	0.0%
	South	14.4% (54/374)	96.2%	3.8%	92.5%	7.5%	100.0%	0.0%	96.2%	3.8%
Age at Visit	N	374	365	7	323	49	361	13	362	8
	N Miss	0	0	0	0	0	0	0	0	0
	Mean	6	6	6.4	6.0	5.5	5.9	9.3	6	4.3
	Std Dev	6.5	6.6	6.4	6.6	6.4	6.4	10	6.6	5.2
	Median	4.0	4	5.1	4.2	1.6	4	6.8	4.1	2.1
	Quartile Range	8.1	8.1	11.5	7.9	8.9	8	8.2	8.1	6.7
Distance from Site (Miles)	N	374	365	7	323	49	361	13	362	8
	N Miss	0	0	0	0	0	0	0	0	0
	Mean	54.8	54.7	54.8	55.2	51.0	55.0	50.0	53.8	95.3
	Std Dev	88.9	89.4	52.6	91.9	65.4	89.3	80.3	88.9	100.7
	Median	22.1	21.7	45.5	22.4	22.4	24.0	13.3	21.7	44.9
	Quartile Range	47.9	47.8	46.5	47.9	44.9	47.9	26.1	47.8	160.8

Table 1. Survey questions administered to parents/guardians whose child was seen via telemedicine for their appointment.

Survey Questions		
Question 1 (Yes/No)	Was your "MyChart E-Check-in" call the day prior to your Telemedicine appointment helpful?	"Feasibility"
Question 2 (Yes/No)	Was your Telemedicine "Technical Call" 30 minutes prior to your appointment helpful?	
Question 3 (Yes/No)	By the conclusion of your Telemedicine appointment were all your questions answered by the provider?	"Experience"
Question 4 (Yes/No)	Would you be comfortable using Telemedicine again for future appointments?	
Open ended	Were there any benefits or drawbacks from your Telemedicine appointment?	

Results

Table 3. Diagnosis categories and their frequency. For each patient, visit diagnosis at the time of telemedicine visit was sorted into one of 14 broad urologic diagnoses categories.

Diagnosis Category	Frequency
Anorectal	2.6% (10/374)
Dysfunctional Voiding	13.6% (51/374)
Genital Abnormality	12.0% (45/374)
Hydronephrosis	21.9% (82/374)
Kidney Condition	2.4% (9/374)
Malignant Neoplasm	1.0% (4/374)
Neurogenic Condition	2.1% (8/374)
Testicular & Scrotal Conditions	6.1% (23/374)
Urinary Tract Infection	6.1% (23/374)
Urethral Abnormality	3.7% (14/374)
Urinary Incontinence	3.2% (12/374)
Urinary Tract Malformation	11.8% (44/374)
Vesicoureteral Reflux	8.2% (31/374)
Other	5.3% (20/374)

Table 4. Open ended responses categorized into one of five themes.

Overall Experience			
Positive (63/172)		Neutral (99/172)	
Great/Awesome/Excellent (26) I liked it/love it/happy with it (11) Worked well (10) Very helpful (5) As good or better than regular appointment (2) Easy (2) Glad I did it (1) Good enough for COVID (1) Worthwhile (1) Fun (1) Child liked the appointment (1) Very organized (1) Very comfortable (1)		No drawbacks/no complaint/none (72) Fine/Okay/Good (27)	
Did not like it (4) Not good at all/Not great (2) Not helpful (1) Difficult (1) Apprehensive (1) Too stressful (1)			
Technology		Clinical Interaction	
Positive (9/81)		Negative (56/76)	
Easy to connect/set up (5) Did not require technical support (3) Was able to do it on a laptop (1)		Difficult to set up/connect (43) Dropped call/poor internet connection (13) Audio/video problems (9) Poor software (4) Difficulty with patient portal (2) Technology was a distraction (1)	
Answered questions/got needed information (11) Liked the physician (6) Eased our minds (1) Very personal (1) Did not feel rushed (1)		Weird showing genitals/pictures online (15) Hard to do physical exam (12) Rushed (10) Provider didn't care/rude/didn't like provider (8) Not personal (7) Can't do necessary testing/imaging (2) Had more questions but couldn't ask due to time (2)	
Logistics		Visit Preference	
Positive (207/251)		Negative (35/74)	
Didn't have to drive/travel (44) Easy (37) Nice to do it from home (35) Fast/efficient (12) Convenient (12) Didn't have to be exposed to COVID (12) Didn't have to worry about other kids in the office (7) Didn't have to get a babysitter (6) Telehealth appointment availability was better than in-person/allowed to see doctor despite COVID (6) Safe (5) Convenient for fast appointment or test result (5) No parking (5) Pre-call was helpful (5) Kids could be more relaxed at home (2) Easier with special needs kids (2) No waiting (2) Better than expected (2) Didn't have to go into the hospital (2) Had more time than a regular appointment (1) Both parents could be present despite work (1)		Didn't get pre-call (8) Too many moving parts/complex (7) Not sure how-to follow-up/get school notes (6) Needed babysitter for other kids/hard to manage other kids at home (4) Not sure how to schedule surgery (3) Need a notice about whether provider is on time/present/late (2) Not as easy as expected (2) Hard to schedule (2) Would have been better with older kids (1) Financial concerns related to visit (1) Difficult to review history (1) Hard to get kids to cooperate (1) Needed forms prior to appointment and didn't receive them (1) Poor ancillary support/staff (1) Doesn't seem as private (1) Would like to cluster appointments (1) Confusion about type of appointment (1) Too quick (1)	
Would do it again/prefer this type of visit (30) Wouldn't mind doing it again (5) Have done it in past and prefer it (2) Please keep this going (1) This is a great plan (1)		Like in person/face to face/personal visits better (23) Okay for follow-up but need in person once a year (6) Kid would do better in person (1) Logistics are better in person (1) Didn't feel right (1) Not sure if I would do it again (1) Would not see them same doctor again (1) Never doing it again (1)	

Conclusions

- Overall, parents reported telemedicine to be an acceptable alternative to in-person visits and demonstrated a willingness to continue to use it in the future.
- Parents noted that pediatric urology offers unique challenges due to its personal and sensitive treatment, including the need to evaluate the genitalia.
- As the role of telemedicine continues to expand, consideration of these challenges is needed to ensure that pediatric urology patients and their parents are comfortable with this approach.