# Collaboration and Standardized Management Plans to optimize clinical care and research of Posterior Urethral Valves



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## Disclosures

One



## Background

- Posterior Urethral Valves (PUV) is a rare, yet devastating disease of the male urinary tract with the potential for kidney injury
- Clinical practice guidelines are lacking
- Standardized Clinical Assessment and Management Plans (SCAMPs) were first described by the cardiovascular department at Boston Children's Hospital in 2010
  - SCAMPs improve on clinical practice guidelines by inviting clinician diversions, data collection and outcome measures



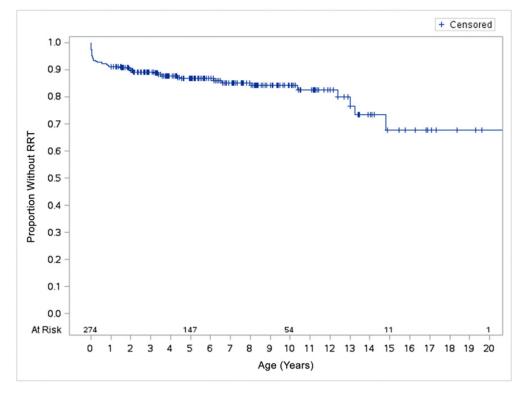
## Study Aims

 Through a multispecialty and multi-institutional collaborative we aimed to 1) assess the need for and 2) develop a SCAMP for the management of PUV across five Midwest children's hospitals



#### Results

- A retrospective analysis identified 274 children born between 1995 and 2005 who were initially cared for at one of the 5 PUMA centers
  - On survival analysis, 30% progressed to End Stage Renal Disease (ESRD) by 15 years of age<sup>1</sup>
- Significant practice variability was noted across PUMA centers



**FIGURE 1**Kaplan-Meier estimates of age at RRT (PUV cohort; 1995–2015).



[1]McLeod DJ, Szymanski K, Fuchs M, Gargollo P, Gong E, Granberg C, Reddy P, Sebastiao Y, Whittam B, VanderBrink B. Renal Replacement Therapy and Clean Intermittent Catheterization in Posterior Urethral Valves: A 20-year Multi-Institutional Retrospective Cohort Study. *J Pediatr*. February 2019. [Epub ahead of print] PMID: 30709926.

### Results

- In areas of disagreement, literature reviews, conference calls and inperson meeting facilitated consensus
- A SCAMP was developed, incorporating expert opinion and contemporary literature for the management of PUV
- Surgeon preference options were added to improve acceptance and variance off pathway will be studied to allow future revisions



#### Discussion

- To date we have shown the feasibility for multispecialty and multiinstitutional collaboration for the management of a rare disease
- This SCAMP represents, to our knowledge, the most comprehensive,
  evidence based management pathway available for the care of PUV
- Future work will focus on the study of clinical outcomes and SCAMP revisions to optimize PUV management

