The burden to generate good-quality evidence and establish best practices in the management of patients with prenatally-detected hydronephrosis is on our community of pediatric urologists; through careful study design and robust analysis procedures, we will hopefully have the ability to identify the variables that will populate future generalizable AI tools. This article is a great first step in that direction and the authors should be congratulated for it.

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AUTHOR REPLY

We sincerely appreciate the thoughtful comment accompanying our manuscript. We wholeheartedly agree that this is an exciting time for medicine, with sophisticated technology becoming more and more user friendly as well as increasingly accessible.

As highlighted, choosing an outcome such as surgical intervention may be perceived as surgeon or institution dependent. Nevertheless, we feel that our surgical indications, especially for pyeloplasty, are similar to many other pediatric institutions. We acknowledge that surgical indications may vary, as can be seen with related conditions such as uretero-vesical junction obstruction or vesicoureteral reflux. It is unlikely that advanced analytics will be able to standardize the multifactorial decision to proceed with surgery in the near future. It can, however, risk stratify patients while taking into account variability between providers or institutions. As models are perfected and databases grown, so will our ability to harness this technology to improve patient care.

We are grateful for the opportunity to publish this experience as one of the first in our sub-specialty. We hope that this information will spark interest in this technology and actively engage other in exploring further, introducing more sophisticated tools and fostering collaboration between experts in computer science and the growing artificial intelligence field with clinical experts in pediatric urology and radiology. While this technology can never replace informed clinical decision-making by experienced clinicians, we hope to be able to enhance patient, family and health care provider experience by fine tuning and training user-friendly models capable of consuming and quickly analyzing vast amounts of valuable clinical data to ultimately assist real-time decisions in everyday practice.

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