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measuring PVR using ultrasound is arguably unique in its minimally-invasive nature, reproducibility, and ability to deliver objective data. It is a technique which has been universally adopted and employed, albeit with little data to guide the user in interpreting its results. Indeed, several guideline statements deemed obtaining a PVR a Clinical Principle, a statement for which there may or may not be evidence in the medical literature that is widely agreed upon by clinicians.<sup>1-3</sup>

The current study explored the relationship between PVR and LUTS in several large cohorts and delivered 3 key findings. First, the incidence of elevated PVR in men and women seen for LUTS varies by the definition of “elevated.” When PVR exceeded 300 mL the incidence was 2% and rose to 9% when the threshold was lowered to 150 mL. Second, and not unexpectedly, voiding symptoms had a greater association with elevated PVR than storage symptoms. Third, the association between self-reported LUTS and PVR was weak, at best. Regardless of the threshold, it is reassuring to know that relatively few patients with LUTS have “elevated” PVRs; however, this finding, unfortunately, gets us no closer to advancing PVR beyond its current Clinical Principle status. A threshold, clinically-significant elevation in PVR that automatically triggers a “red flag” for the practitioner remains elusive.

As it stands, PVR can be viewed in 2 ways. On one hand, if viewed in a vacuum, PVR is either a source of comfort or potential concern. If low, the practitioner is more confident about proceeding with medical or surgical treatment of LUTS associated with BPE, SUI, or OAB. Conversely, when high, the practitioner is more likely to engage in additional work-up or monitoring. While not a surrogate for progression or stability of a urologic condition, obtaining serial PVR measurements can further bolster the practitioner’s confidence in maintaining or changing their treatment course. On the other hand, PVR can be considered a part of a greater whole in evaluating LUTS. Thus, management and additional work-up can be guided by the patients’ history, physical examination, PVR, and other testing such as uroflowmetry and urodynamics.

The authors’ conclusion that “the measurement of a PVR during the initial evaluation of all patients with LUTS is advisable” is on the money. While the absolute threshold for guiding work-up and treatment of LUTS is yet unresolved, PVR continues to be a low-risk, high-reward tool in improving the practitioner’s confidence and guiding the decision to perform further testing.

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## EDITORIAL COMMENT



Obtaining a Post-void Residual (PVR) is one of the most common procedures performed in Urology. In a subspecialty replete with uncomfortable and potentially embarrassing tests,