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## AUTHOR REPLY



We were able to decrease inpatient postoperative opioid use and pain scores in radical cystectomy patients through dedicated adherence to ERAS protocols by our providers, nursing staff and patients. Certainly, there are limitations in the interpretation of our results as this was a retrospective, observational study. Despite this, we believe ERAS pathways promote several fundamental concepts that optimize perioperative urologic care.

First, the checklists, interactive auditing systems and compliance tracking measures that we reference allow for robust data analysis and transparency of outcomes. As a result, real-time, dynamic adjustments to improve patient care can be implemented quickly and efficiently by the clinical team. Second, these ERAS protocols are ideally positioned to understand preoperative opioid use and minimize postoperative opioid use. For example, we are in the process of risk stratifying radical cystectomy patients based on active preoperative opioid prescriptions to individualize ERAS pathways to allow for safe and appropriate delivery of tailored multimodal pain control regimens post-operatively. Lastly, central to the ERAS paradigm is increased patient education that we believe leads to increased patient satisfaction and “buy-in” to their postoperative care.

We must continue to explore ways that ERAS can be further applied to the field of urology. We encourage the application of ERAS pathways to other urologic procedures which a few

studies<sup>1-3</sup> have demonstrated, and as we have done extensively with renal surgery. As the clinical landscape continues to evolve due to COVID-19, ERAS protocols are uniquely situated to formalize virtual visits and telemedicine as part of a pathway checklist or compliance measure. Importantly, we call for higher volume institutions (ours included), dedicated to the application of ERAS protocols in urologic surgery, to collaborate for the purpose of publishing multicenter outcomes and to make these findings more generalizable.

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## References

1. Lin C, Wan F, Lu Y, Li G, Yu L, Wang M. Enhanced Recovery after surgery protocol for prostate cancer patients undergoing laparoscopic radical prostatectomy. *J Int. Med Res.* 2019;47:114–121.
2. Sugi M, Matsuda T, Yoshida T, et al. Introduction of an enhanced recovery after surgery protocol for robot-assisted laparoscopic radical prostatectomy. *Urol Int.* 2017;99:194–200.
3. Swerdloff D, Podolski D, Smith RE, et al. Enhanced recovery after partial and radical nephrectomy reduces length of stay, opioid use and cost. *World J Surg.* 2019;43:1–8.

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