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## Cystoscopy at the time of benign hysterectomy: a decision analysis



**TO THE EDITORS:** We were excited to read your timely and important publication “Cystoscopy at the time of benign hysterectomy: a decision analysis”<sup>1</sup> because safety in and quality of gynecologic surgery is a major focus. We wish to express several concerns regarding the methods of this study and possible implications for its interpretation and conclusions.

First, we suggest the outcomes used within the authors’ models are incomplete. In the paper, Cadish et al<sup>1</sup> account for only 90-day outcomes of diagnostic testing, treatment, and readmission for treatment without fully considering other documented infectious and systemic sequelae. Recently, Blackwell et al<sup>2</sup> demonstrated the profound and far-reaching consequences of a delayed ureteral injury, with includes increased odds of rehospitalization, kidney injury, sepsis, and death. A robust model of lower urinary tract injury at the time of hysterectomy should include these substantive complications to ensure appropriate cost estimates of delayed injury recognition.

Second, although we agree that the use of Medicare fee schedules represents an appropriate cost basis, our concern is with the use of these data. The reported costs appear to include only the professional component of each procedure.<sup>1</sup> In our experience, it is customary also to include facility, anesthesia, diagnostic interpretation, and hospitalization fees where applicable. Exclusion of these fees, which are published by the Centers for Medicare and Medicaid Services,<sup>3,4</sup> systematically underestimates all costs that are used within the proposed model. For example, the authors used a cost of \$858.41 for laparoscopic hysterectomy (CPT 58571). When accounting for the facility fee of an ambulatory surgical center and the anesthesia fee for a presumed 2-hour case in a low-risk patient, we calculate a cost estimate of \$8198.66.<sup>3</sup> Appropriate tabulation of these costs may change conclusions significantly regarding the marginal cost of cystoscopy and the reported threshold analysis findings.

Third, we question the assumptions used in the model of “selective” cystoscopy. The authors describe performing cystoscopy in “the group with above-average risk” but provide no further enumeration of the probability of cystoscopy or risk calculation/distribution.

Given our concerns regarding the assumptions and cost calculations in this analysis, we caution against the use of this study’s conclusions to drive decision-making regarding

cystoscopy at the time of hysterectomy and will continue to support its universal implementation at our institution while awaiting further research that will address this important topic. ■

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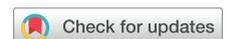
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## REPLY



We agree that delayed ureteral injury causes significant morbidity after hysterectomy. We intentionally modeled hysterectomy modalities separately, accounting for increased thermal injury with laparoscopic or robotic approaches. Blackwell et al<sup>1</sup> published their study of delayed ureteral injury sequelae after our analysis was complete, but even so, delayed injury rarely is diagnosed beyond the 90-day postoperative period, even when