

# A cost analysis of radical prostatectomies: Will it ever be possible?

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Radical prostatectomy is the gold standard for the surgical treatment of localized prostate cancer. Even though open radical prostatectomy (ORP) has set the standard for the past 30 years, there has been increasing widespread adoption of laparoscopic radical prostatectomy (LRP) and robotic-assisted laparoscopic radical prostatectomy (RALP). Despite insufficient evidence demonstrating the superiority of LRP or RALP over the gold standard (ORP), many patients choose minimally-invasive procedures based upon their perceptions of outcomes and published lay and medical literature. Although the literature has resulted in a transition away from ORP in many parts of the world, the urological community has been unable to reach a consensus on the optimal surgical management for men with localized prostate cancer. What is driving this lack of consensus? Are they the oncological outcomes, functional results or rising health care costs?

Al-Shaiji and colleagues address the direct cost component in a retrospective cohort chart review of patients undergoing ORP and LRP in a Canadian teaching hospital.<sup>1</sup> Methodology and cost calculation limitations are addressed by the authors. Findings suggest that in a Canadian health environment, there may be cost savings realized by LRP over ORP particularly as experience with this procedure expands. However, these additional anticipated savings with increasing experience with LRP in a more contemporary series would undoubtedly also be realized in the ORP group, with refinements in anesthesia, reduced transfusions and reduced length of stay (as has been reported by most centres in North America);<sup>2</sup> these refinements would probably negate any significant net cost benefit between the 2 procedures. In addition, a cost analysis restricted to the surgical procedure and daily hospital fees fails to recognize the significant health care expenses associated within the first 30 days postoperatively. To determine the less costly of the 2 procedures, a cost-minimization analysis of the data would be required; however, an assumption of equivalent outcomes must be made. Unfortunately, functional and oncological outcome data from these 2 sets of patient data are not presented; to extrapolate the less costly procedure for a patient to select or a hospital or urologist to offer may not be appropriate.

As new technology and procedures are introduced, health care administrators and the public are becoming increasingly aware of the need for fiscal accountability and improved

outcomes. A new field, health technology assessment, has emerged to address these issues involving the measurement of these costs and the associated economic implications. In the past, new procedures, such as ureteroscopy and percutaneous nephrolithotripsy, were introduced without any cost analysis or randomized controlled trial demonstrating their superiority over open stone surgery. The results of such studies, if performed, may seem obvious today, but at the time, those new procedures were often painstaking and fraught with more complications than open surgery. Undoubtedly, these costly urological breakthroughs were met with skepticism. Is this going to hold true for LRP and RALP?

Interest in cost analyses has accompanied concerns about rising health care costs, pressures on health care policymakers to allocate resources, and the need for health industries and other technology advocates to demonstrate the economic benefits of their technologies. Urologists must take the lead in this evaluation and use accepted health care technology assessment methodology for cost analysis, which should be incorporated within our outcome clinical trials. This would allow us to look not only at direct costs, but indirect and illness related costs as well. The opportunity for a randomized controlled trial of ORP versus LRP or RALP may have passed, but an economic analysis associated with the outcome clinical data in a prospective comparative cohort study may provide the evidence resolving this debate once and for all. I believe Canadian urologists may be ideally positioned to perform such a study.

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## Reference

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