

Re: Radical Prostatectomy or Watchful Waiting in Prostate Cancer—29-Year Follow-up

Bill-Axelsson A, Holmberg L, Garmo H, et al

N Engl J Med 2018;379:2319–29

Experts' summary:

The 29-yr update of the SPCG-4 trial comparing radical prostatectomy (RP) with watchful waiting (WW) for prostate cancer (PC) gives some final answers to very old questions. By December 31, 2017, impressive numbers of 86/347 men in the RP arm and 56/348 men in the WW arm were still alive. PC-related deaths occurred in 71 versus 110 cases, and the RP group had gained a total of 2.9 extra yrs of life. The authors conclude that men with clinically detected, localized PC and long life expectancy benefit from RP.

Experts' comments:

We must keep in mind that the results represent intent-to-treat data that are diluted by a number of factors. In the RP group, 15% of patients did not actually undergo RP, including those for whom the operation was abandoned because of PC-involved lymph nodes. We now have good evidence that many of these patients would have benefited as well. In the WW group, 15% of protocol violators received a curative treatment. Furthermore, there was significant tumor-unrelated mortality within the first 10 yr of the trial, which also dilutes the results for the patient group of interest, namely those with high life expectancy. Of the patients randomized to WW at age <65 yr, almost 50% (81/166) finally developed distant metastases. Because of his higher life expectancy, a comparable patient seeking advice in 2020 can be predicted to draw an even higher benefit from RP.

On a more political level, reduction of PC-related mortality will become a more important focus of timely detection and treatment strategies. For many tumors, such as lung cancer, we are witnessing a dramatic reduction in mortality rates. PC threatens to become the only significant cancer with increasing instead of decreasing mortality numbers, predominantly because of demographic factors. Moreover, we must realize that most relevant answers concerning reduction of PC morbidity and mortality are given beyond year 15 of follow-up. Thanks to SPCG-4, robust answers are now available for RP versus WW. Similar data are not yet available for active surveillance, or for strategies that treat tumor foci instead of the tumor-bearing organ. Because of the long follow-up times, randomized controlled trials in PC are unavoidably more demanding than in most other malignant diseases, but without such trials, reliable answers never will become available and PC treatment will continue to be subject to myths and speculations.

Conflicts of interest: The author has nothing to disclose.

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Re: Health Economic Analysis of Open and Robot-assisted Laparoscopic Surgery for Prostate Cancer Within the Prospective Multicentre LAPPRO Trial

Forsmark A, Gehrman J, Angenete E, et al

Eur Urol 2018;74:816–24

Experts' summary:

Forsmark and co-workers performed a health economic analysis to assess how costs differed between robotic and open radical prostatectomy (RP) using data from the prospective nonrandomised multicentre LAPPRO trial [1]. A base-case analysis assuming 200 RPs per year per centre, a robot-system life expectancy of 7 yr, an annual discount rate of 3% on supply charges, and surgeon experience of >100 RPs was used to produce a reference scenario. Overall, 803 open (RRP) and 1835 robotic (RALP) RPs between 2008 and 2011 were analysed. RALP was associated with significantly lower postoperative sick leave, transfusions, reoperations, and readmissions.

After applying predefined costs for each resource variable, the authors found that RALP resulted in a higher cost per procedure of 3837 (95% confidence interval [CI] 2747–4928) purchasing power parity US dollars (PPP\$) compared to RRP ($p < 0.0001$). The difference in cost between the two approaches was affected primarily by

robot purchase/maintenance, sick leave, and operation time. Moreover, a post hoc analysis showed that a caseload of >400 RALP surgeries per year would lead to a substantial reduction in the cost difference compared to RRP (PPP\$ 1278, 95% CI 190–2746; $p < 0.001$). Conversely, inclusion of all the procedures irrespective of surgeon experience would lead to an increase in the cost difference between the two procedures.

Experts' comments:

In prospective studies, RALP showed no statistically significant improvement in continence and a small improvement in erectile function compared to open surgery, whereas surgeon experience seems to be the most important factor associated with optimal postoperative outcomes [2]. Nevertheless, there has been exponential diffusion of RALP worldwide in the past decade and urology patients are increasingly requesting a robotic approach. Surgical treatment of prostate cancer and of kidney cancer is increasingly performed via a robotic approach. Robotic urological surgery is not limited to the treatment of urological malignancies, and many other procedures are better when performed robotically. So the main question is how robotic systems can be made available to the entire population. The higher costs could represent a barrier for