Introduction
Monootherapy for localised prostate cancer with radical prostatectomy, external beam radiotherapy or brachytherapy produce similar oncological outcomes. Hence there is increasing need to evaluate and communicate the quality of life outcomes of these treatments. The aim of our prospective study was to determine how the various types of radical treatment at a tertiary referral centre affected the health related quality of life (HRQOL) domains of urinary, sexual, bowel, and hormonal features relative to men managed with active surveillance.

Materials and Methods
We measured HRQOL outcomes from baseline through to 24 months after treatment using the EPIC questionnaire (Expanded Prostate Cancer Index Composite) in a cohort of 851 patients first treated for stage T1 or T2 prostate cancer from May 2007 to February 2011. Patients elected one of five management options: (1) Robotic prostatectomy (RALP) further subdivided by surgeon experience (1a) RALP <200 and (1b) RALP 200+; (2) Radical retropubic prostatectomy (ORP); (3) High dose rate brachytherapy (HDR); (4) Low dose rate brachytherapy (LDR) and (5) active surveillance (AS). Demographic and treatment variables were recorded at baseline. We used multivariate linear regression analyses with generalised estimating equations (GEE) to estimate adjusted mean differences in outcome scores between treatments.

Results
A total of 770 (96%) men with complete data were included in the analysis. All baseline clinical and demographic characteristics showed significant heterogeneity within treatment types (P<0.001). Questionnaire completion rates ranged from 88% to 100% for any given treatment/month. There was a significant change in sexual quality of life in each group (P<0.005) from baseline to follow-up except in the AS group.

Men in the RALP 200+ showed a significant trend towards return to baseline urinary and sexual function. Men in the HDR or LDR brachytherapy groups had worse bowel function and urinary irritation/obstructive scores after treatment but these scores improved between 12-24 months.

Conclusion
Treatment for localised prostate cancer has significant and persistent adverse effects on quality of life. However, men managed by active surveillance maintained a reasonably stable quality of life scores across all EPIC domains. In the absence of randomized clinical trials, observational studies such as ours can help portray a realistic expectation in terms of changes in quality of life for men treated for localised prostate cancer.

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