

# Association between treatment for localized prostate cancer and mental health outcomes

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on behalf of CEASAR Investigators



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## Introduction

### Background:

- Management options for localized prostate cancer are similar with respect to intermediate-term survival outcomes and differ with respect to disease-specific functional outcomes.
- Little is known about the impact of prostate cancer treatment on mental health outcomes.

### Objective:

- We evaluated the association between prostate cancer treatment choice and patient-reported mental health outcomes over time.

## Methods

- We enrolled a population-based cohort of men who underwent active surveillance, surgery or radiation therapy as part of the Comparative Effectiveness Analysis of Surgery and Radiation (CEASAR) study.
- We evaluated the following longitudinally through 5 years:
  1. Depression (using the CES-D score, range 0-27, higher score indicating worse depression)
  2. Emotional well-being, energy and vitality (using the SF-36, range 0-100, higher scores indicating better function)
- We excluded patients who did not complete at least one CES-D or SF-36 follow-up survey.
- Univariate and multivariate analysis were performed to assess factors associated with CES-D and SF-36 scores.

## Results

- Among 1509 (52.4%) patients undergoing radical prostatectomy, 961 (33.4%) undergoing radiation therapy and 409 (14.2%) undergoing active surveillance there were no significant differences in CES-D or SF-36 scores between treated patients and those undergoing active surveillance (Table 1).
- The most significant predictors of decline in CES-D score included: older age ( $p=0.0075$ ), poor overall health ( $p<0.0001$ ), being unmarried ( $p<0.0195$ ) and lower baseline CES-D score ( $p<0.0001$ ). Baseline sexual function and urinary control were not correlated with longitudinal CES-D scores. Similar factors were found to be correlated with SF-36 emotional well-being, energy and vitality scores.

## Conclusions

- Treatment with surgery or radiation was not associated with depression symptoms, or emotional well-being, energy, and vitality scores when compared to active surveillance through five years.
- Factors associated with development of depression or declining emotional well-being included: older age, being unmarried, poor overall health and lower baseline scores.

## Future Directions

- Further analysis is warranted to determine if post-treatment sexual, urinary and bowel function are associated with longitudinal changes in mental health.

Table 1

Time from Treatment (Months)	Radical Prostatectomy vs. AS			Radiation vs. AS		
	Effect	95% CI	P-value	Effect	95% CI	P-value
<b>CESD</b>						
6		[-0.7, 0.10.9]	0.739		[-1.4, -0.50.4]	0.302
12		[-1.9, 1.24.2]	0.448		[-3.5, 0.13.7]	0.967
36		[-7.3, 5.318.0]	0.41		[-12.6, 2.317.2]	0.76
60		[-12.9, 9.531.9]	0.405		[-21.7, 4.630.9]	0.733
<b>Emotional Well-Being</b>						
6		[-2.4, 0.43.1]	0.79		[-2.8, 0.23.3]	0.875
12		[-10.5, -0.210.0]	0.964		[-13.8, -2.29.5]	0.717
36		[-44.9, -2.739.5]	0.901		[-59.8, -11.736.3]	0.632
60		[-79.5, -5.169.2]	0.892		[-105.9, -21.363.3]	0.621
<b>Energy/Vitality</b>						
6		[-3.0, 0.33.6]	0.852		[1.0, 4.78.5]	0.013
12		[-7.4, 4.917.1]	0.434		[-6.3, 8.222.7]	0.268
36		[-27.6, 23.274.0]	0.371		[-38.3, 2282.3]	0.474
60		[-48.0, 41.5130.9]	0.363		[-70.4, 35.8142.0]	0.509

## Disclosures

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