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**Title**

*Quality of Life of Men Five-Year after Diagnosis with Low-risk Prostate Cancer in a Population-based Sample*

**Priority 1 (Research Category)**

Population health and epidemiology

**Presenters**

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**Abstract**

Context: Multiple treatment options are available for men with low-risk prostate cancer (LPC) and can lead to different side effects affecting quality of life (QOL). Objective: To assess QOL changes in a cohort of men with LPC who chose different treatment at baseline and follow-up for the first 5-years. Design: Longitudinal cohort study. Setting: Population-based sample recruited from two cancer registries. Patients: Black and White men  $\leq 75$  years with newly diagnosed low-risk LPC during 2014 to 2017. Instrument: Mailed survey including SF-12 and EPIC-26 (QOL measures specific for prostate cancer). Main and Secondary Outcome Measures: Treatment choice and QOL at baseline and 5-year follow-up. Results: Of the 1688 eligible patients recruited soon after diagnosis at baseline, 907 were followed-up at 5-year after diagnosis. 530 (58.4%) were recruited from metropolitan Detroit and 377 (41.6%) were from Georgia. Overall, 85% were white and 16% were black, with a mean age of 63.0 years (SD=6.7, range 42-75). Among 907, 354 (39.0%) were in the treatment group (Tx), 324 (35.7%) men initially on AS continued to be on AS, and 229 (25.2%) men initially on AS switched to Tx within 5-year follow-up. At baseline, there were no significant differences in all QOL measures (SF-12 and EPIC-26) between the AS group and Tx group. At 5-year follow-up, there were significant declines in all the QOL measures from baseline in the Tx group while there were only minimal changes in most of the QOL measures in the AS group. The time by group interaction was significant in four of the seven QOL measures, including the EPIC Urinary incontinence, Urinary irritative, Bowel and Sexual function measures. The largest decline was found in sexual function in the Tx group (70 at baseline vs. 42 at follow-up,  $p < 0.001$ ), while there was a much smaller decline in sexual function (69 at baseline vs. 58 at follow-up,  $p < 0.001$ ) in the AS group. At 5-year follow-up, White men reported higher score in SF-12 Physical (51 vs. 49,  $p = 0.04$ ) and SF-12 Mental (55 vs. 53  $p = 0.03$ ) than Black men. Conclusions: There were no differences in any QOL measures between AS and Tx group at baseline. While both group QOL functions declined during 5-year follow-up, most QOL measures deteriorated to a much larger extent in treatment group, particularly sexual function.