Impact of the 17-gene Genomic Prostate Score assay on standardizing treatment of newly diagnosed, clinically low risk prostate cancer patients within the Veterans Health Administration

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INTRODUCTION: Active surveillance (AS) is a recommended treatment option for low risk prostate cancer (PCa). Studies have shown high rates of AS in the Veterans Healthcare Administration (VA) yet treatment variation exists between VA medical centers (VAMCs). The 17-gene Genomic Prostate Score (GPS) has been validated to predict likelihood of favorable pathology in men with low risk PCa. We designed a study comparing treatment patterns before and after introduction of the GPS to determine if use of the assay assists in standardizing treatment in Veterans.

METHODS: Men with PCa who met NCCN criteria for very low (VL), low (L), or intermediate (INT) risk PCa were eligible. Chart review of men across 6 VAMCs established baseline treatment in untested patients in 2013-2014. In 2015, eligible Veterans at the same VAMCs were offered the assay through a prospective study. Treatment recommendations and treatment implemented were captured.

RESULTS: There were 200 men in the untested cohort. Characteristics: age (median=66, range:43-83), Gleason Score (GS) (3+3:64%, 3+4:37%), PSA (mean=6.6, range:0.7-20), NCCN risk (VL:18%, L:37%, INT:46%). 62% pursued AS. Use of AS varied across VAMCs (range:31%-84%). AS increased with age, and decreased with higher GS and NCCN risk group. Characteristics were similar among the 97 Veterans prospectively enrolled, including NCCN risk (VL: 24%, L: 38%, INT: 38%). A wide range of GPS results were observed (4-48).The GPS provided a refined risk group in 5% of VL, 27% of L, and 9% of INT.

CONCLUSIONS: Both groups of patients had characteristics representative of low risk PCa in the VA. Chart review confirmed variation in use of AS. Analysis of 97 tested Veterans showed refined risk estimates after GPS. Results presented at the meeting will demonstrate the ability of the GPS assay to identify men with low risk PCa for AS or immediate therapy using individualized biological information.