Impact of Quality Improvement Initiative Tied to Value-Based Reimbursement Metric on Salvage Therapy Utilization After Radical Prostatectomy

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INTRODUCTION AND OBJECTIVE:

Despite guideline recommendations in support of salvage radiotherapy (sRT) for patients with biochemical recurrence (BCR) following radical prostatectomy (RP), previous investigations have shown low utilization. In 2019, we initiated a quality improvement strategy to increase rates of sRT, coupling an educational initiative to a value-based reimbursement (VBR) metric in collaboration with Blue Cross Blue Shield of Michigan (BCBSM). We report the impact of this strategy on salvage therapy utilization.

METHODS:

The Michigan Urological Surgery Improvement Collaborative (MUSIC) and BCBSM developed a VBR metric to align reimbursement with quality of care. This was applied for sRT from July 2019-June 2021 and coupled with educational sessions. Here, we identified MUSIC patients who underwent RP from 2012-2023 and met the following criteria: PSA ≥ 0.1 after 30 days post RP and at least 1 follow-up PSA or initiation of treatment after the detectable PSA. Patients who received treatment before RP or prior to the detectable PSA were excluded. The primary outcome was the Kaplan-Meier probability estimate of sRT at 1 year. The probability of any salvage therapy was also assessed. Time periods were categorized as pre-VBR (2012-June 2019), VBR (July 2019-June 2021), and post-VBR (July 2021-2023).
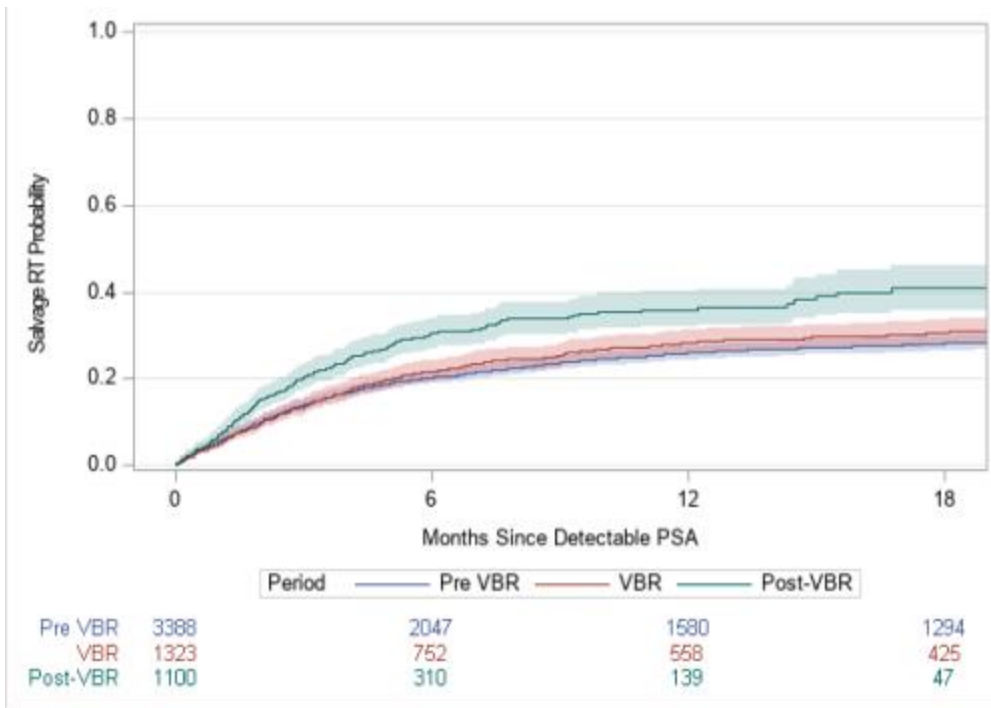
RESULTS:

The cohort consisted of 5,811 patients with a median age of 64 yrs (IQR 59-69) and median time from RP to detectable PSA of 4.4 mo (1.6-17.4). A total of 2,533 underwent any salvage therapy, consisting of RT (n=469), RT+ADT (n=957), and ADT/systemic therapy (n=1,107). Median PSA at sRT initiation was 0.5 ng/mL (0.2-1.9) pre-VBR, 0.4 ng/mL (0.2-1.5) during the VBR, and 0.4 ng/mL (0.2-1.9) post-VBR. The 1-year probability estimate for sRT was 26% pre-VBR, 28% during the VBR, and 36% post-VBR (p<0.001; Figure). The 1-year probability estimate for any salvage therapy was 42% pre-VBR, 43% during the VBR, and 55% post-VBR (p<0.001).

CONCLUSIONS:

Rates of salvage therapy changed little initially but increased significantly over time. These data suggest that the salvage therapy initiative, employing both educational and reimbursement strategies, was ultimately successful at improving the delivery of guideline concordant care in this setting.