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## EDITORIAL COMMENT



Adenocarcinoma of the prostate is a major health concern in the United States, with 31,620 deaths estimated for 2019.<sup>1</sup> A recent population-based study of nearly 400,000 patients found that radical prostatectomy (RP) was the most commonly utilized treatment in the United States for intermediate- and high-risk patients.<sup>2</sup> In men under aged 70 in these risk groups, RP accounted for 48%–82% of first line therapy.<sup>2</sup> These patients with intermediate- and high-risk disease represent the population most to be at high risk for recurrence following RP, historically defined by the presence of extracapsular extension, seminal vesicle involvement, or positive surgical margins. The risk of subsequent biochemical failure in men with these adverse pathologic features ranges from 40% to 70%.<sup>3–7</sup>

The management of men at high risk for recurrence following RP remains contentious. Three randomized trials investigated the potential benefit of adjuvant radiotherapy (RT) in men with positive surgical margins, extracapsular extension, or seminal vesicle involvement.<sup>3,6,7</sup> Two trials found a benefit from adjuvant RT in terms of progression-free survival,<sup>3,7</sup> and 1 trial<sup>8</sup> also found a reduction in the risk of distant metastases and an improvement in overall survival, though survival was not a primary endpoint in any of the studies. Despite these

findings supporting the use of adjuvant radiation, the National Comprehensive Cancer Network guidelines recommend either adjuvant RT or observation in men with high-risk features and a recent international consensus conference was unable to reach agreement on when to recommend adjuvant RT after RP.<sup>9</sup>

The current report on changing practice patterns from 1990 to 2017 among physicians participating in the national CaPSURE project sheds additional light on how these data have been translated into clinical practice, and the findings are disconcerting. Of the 6750 men included, one-third had adverse prognostic features, but <10% received adjuvant treatment. Furthermore, during this time, the use of adjuvant therapy declined by >50%, mostly due to less-frequent use of external beam RT alone. What is most concerning, however, is that among the men given adjuvant therapy, the majority were treated with either androgen deprivation (ADT) alone or a combination of ADT plus RT, rather than RT alone as supported by both the randomized trials and expert opinion.<sup>10</sup> There is no high-level evidence to support the use of either ADT alone or ADT + RT in the adjuvant setting. Furthermore, during the years of the study, 45% of men with adverse features experience a biochemical recurrence with a median time to recurrence of only 21 months. Thus, the ability to predict who ultimately can be spared postoperative therapy was little better than a coin toss. The oft-cited justification for withholding adjuvant RT, that early salvage RT is equally effective as adjuvant RT, is not supported by recent evidence.<sup>11</sup>

Clearly, adjuvant RT in high-risk patients has not gained widespread acceptance in the urologic oncology community. As we await the results of randomized trials comparing adjuvant vs early salvage RT, we should try to avoid personal bias and use the best available evidence to guide therapy recommendations.

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