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Abstract

AIMS: Adjuvant radiotherapy post-prostatectomy has been shown to benefit patients with adverse pathology. It remains unclear whether salvage radiotherapy confers equivalent outcomes. Practice guidelines recommend referral to radiation oncology within 6 months after prostatectomy to discuss adjuvant and salvage radiotherapy. The study objectives were to assess, at a population level: (i) post-prostatectomy referral patterns for radiotherapy; (ii) adjuvant and salvage radiotherapy utilisation; and (iii) time trends in relation to clinical trials and guidelines. These findings provide indications of access to quality care.

MATERIALS AND METHODS: This was a retrospective cohort study. Electronic radiotherapy consultation and treatment records were linked to the population-based Ontario Cancer Registry. The population included prostate cancer cases treated with prostatectomy in Ontario between 2003 and 2012. Radiotherapy referral and treatment rates over time were analysed using the chi-squared trend test.

RESULTS: Over the study period, 30,447 prostate cancer patients received prostatectomy. The proportion seen by radiation oncology within 6 months after prostatectomy doubled from 10.7% in 2003-2004 to 21.7% in 2011-2012 (P < 0.0001 for trend), with the largest annual percentage difference in 2009-2011 (3.4%). Among 4641 patients seen within 6 months, adjuvant radiotherapy rates remained at 51.0% ± 3.0%. Contemporaneous with radiation oncology referral trends, overall adjuvant radiotherapy use increased from 6.2% in 2003-2004 to 11.0% in 2011-2012 (P < 0.001), while salvage radiotherapy remained at 8.4% ± 0.4%. Consequently, the total proportion receiving radiotherapy within 24 months increased from 14.1% in 2003-2004 to 17.7% in 2009-2010 (P < 0.0001).

CONCLUSIONS: There was an increase in access to early radiation oncology referral post-prostatectomy and adjuvant radiotherapy in Ontario between 2003 and 2012, following guideline publication.

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KEYWORDS: Health care quality, access, and evaluation; prostatectomy; prostatic neoplasms; radiation oncology; radiotherapy, adjuvant

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