



Cancer Care Ontario

BRACHYTHERAPY FOR PATIENTS WITH PROSTATE CANCER: AMERICAN SOCIETY OF CLINICAL ONCOLOGY/CANCER CARE ONTARIO JOINT GUIDELINE UPDATE			
Clinical Question	Recommendation	Qualifying Statement	
In patients with prostate cancer, what is the efficacy of brachytherapy alone for clinical outcomes compared with external beam radiation therapy (EBRT) alone or radical prostatectomy (RP) alone?	For patients with low-risk prostate cancer who require or choose active treatment, LDR alone, EBRT alone, or RP should be offered to eligible patients	Patients should be counseled about all their management options (surgery, EBRT, active surveillance, as applicable) in a balanced, objective manner, preferably from multiple disciplines.	
		Recommendation for low-risk patients is unchanged from initial guideline, because no new randomized data informing this question have been presented or published since.	
In patients with prostate cancer, what is the efficacy of brachytherapy combined with EBRT for clinical outcomes compared with brachytherapy alone, EBRT alone, or RP alone?	For patients with intermediate-risk prostate cancer choosing EBRT with or without androgen-deprivation therapy (ADT), brachytherapy boost (LDR or high–dose rate [HDR]) should be offered to eligible patients. For low- intermediate risk prostate cancer (Gleason 7, prostate- specific antigen, 10 ng/mL or Gleason 6, prostate-specific antigen, 10 to 20 ng/mL) LDR brachytherapy alone may be offered as monotherapy. For patients with high-risk prostate cancer receiving EBRT and ADT, brachytherapy boost (LDR or HDR) should be offered to eligible patients.	Patients ineligible for brachytherapy may include: moderate to severe baseline urinary symptoms, large prostate volume, medically unfit, prior transurethral resection of the prostate, and contraindications to radiation treatment.	
		ADT may be given in neoadjuvant, concurrent, and/or adjuvant settings at physician discretion. It is noted that neoadjuvant ADT may cytoreduce the prostate volume sufficiently to allow brachytherapy	
		There may be increased genitourinary toxicity compared with EBRT alone.	

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Among the isotopes used for low–dose rate brachytherapy (eg, ¹²⁵ I, ¹⁰³ Pd, and ¹³¹ Cs), which isotope maximizes clinical outcomes when used in patients with newly diagnosed prostate cancer?	¹²⁵ I and ¹⁰³ Pd are each reasonable isotope options for patients receiving LDR brachytherapy; no recommendation can be made for or against using ¹³¹ Cs or HDR monotherapy.	Brachytherapy should be performed at a center following strict quality-assurance standards.	
	Patients should be encouraged to participate in clinical trials to test novel or targeted approaches to this disease.	It cannot be determined whether there is an overall or cause-specific survival advantage for brachytherapy compared with EBRT alone, because none of the trials were designed or powered to detect a meaningful difference in survival outcomes.	