

**Supplemental Table 1.** Search strategy in the Web of Science Core Collection

Number	Search strategy	Outcomes
#1	TI = (prostatic neoplasms) OR TI = (prostate neoplasms) OR TI = (neoplasms, prostate) OR TI = (neoplasm, prostate) OR TI = (prostate neoplasm) OR TI = (neoplasms, prostatic) OR TI = (neoplasm, prostatic) OR TI = (prostatic neoplasm) OR TI = (prostate cancer) OR TI = (cancer, prostate) OR TI = (cancers, prostate) OR TI = (prostate cancers) OR TI = (cancer of the prostate) OR TI = (prostatic cancer) OR TI = (cancer, prostatic) OR TI = (cancers, prostatic) OR TI = (prostatic cancers) OR TI = (cancer of prostate)	104,565
#2	TI = (brachytherapy) OR TI = (radioisotope brachytherapy) OR TI = (curietherapy) OR TI = (brachytherapy, radioisotope) OR TI = (plaque therapy, radioisotope) OR TI = (radioisotope plaque therapy) OR TI = (therapy, radioisotope plaque) OR TI = (surface radiotherapy) OR TI = (radiotherapy, surface) OR TI = (radiotherapy, intracavity) OR TI = (intracavity radiotherapy) OR TI = (radiotherapy, interstitial) OR TI = (interstitial radiotherapy) OR TI = (radiotherapy, implant) OR TI = (implant radiotherapy)	16,196
#3	#1 AND #2	2,449

**Supplemental Table 2.** The 100 most cited articles in prostate cancer brachytherapy, ranked in order by the number of citations received

Rank	Year	Journal	Title	TC	CPYI (rank)
1	1999	IJROBP	American Brachytherapy Society (ABS) recommendations for transperineal permanent brachytherapy of prostate cancer	455	22.29 (6)
2	2001	IJROBP	10-year biochemical (prostate-specific antigen) control of prostate cancer with I-125 brachytherapy	295	16.16 (9)
3	2005	JCO	Long-term outcomes among localized prostate cancer survivors: Health-related quality-of-life changes after radical prostatectomy, external radiation, and brachytherapy	266	18.14 (8)
4	2012	RO	Randomised trial of external beam radiotherapy alone or combined with high-dose-rate brachytherapy boost for localised prostate cancer	250	32.97 (4)
5	2005	JU	12-year outcomes following permanent prostate brachytherapy in patients with clinically localized prostate cancer	222	15.22 (11)
6	2007	CA	Quality of life after surgery, external beam irradiation, or brachytherapy for early-stage prostate cancer	198	15.84 (10)
7	2005	IJROBP	High-dose-rate intensity-modulated brachytherapy with external beam radiotherapy for prostate cancer: California endocurietherapy's 10-year results	190	12.95 (18)
8	2017	IJROBP	Androgen suppression combined with elective nodal and dose escalated radiation therapy (the ASCENDE-RT trial): An analysis of survival endpoints for a randomized trial comparing a low-dose-rate brachytherapy boost to a dose-escalated external beam boost for high- and intermediate-risk prostate cancer	186	74.40 (1)
9	1999	UR	Salvage brachytherapy for localized prostate cancer after radiotherapy failure	180	8.61 (44)
10	2004	IJROBP	Long-term outcome by risk factors using conformal high-dose-rate brachytherapy (HDR-BT) boost with or without neoadjuvant androgen suppression for localized prostate cancer	167	10.60 (27)
11	2001	IJROBP	Phase II prospective study of the use of conformal high-dose-rate brachytherapy as monotherapy for the treatment of favorable stage prostate cancer: A feasibility report	163	8.62 (43)
12	2004	JU	High dose rate brachytherapy as prostate cancer monotherapy reduces toxicity compared to low dose rate palladium seeds	158	10.03 (29)
13	2002	IJROBP	Dose escalation using conformal high-dose-rate brachytherapy improves outcome in unfavorable prostate cancer	158	9.03 (38)
14	2007	RO	High dose rate brachytherapy in combination with external beam radiotherapy in the radical treatment of prostate cancer: initial results of a randomised phase three trial	155	12.57 (19)
15	2007	IJROBP	15-year biochemical relapse free survival in clinical Stage T1-T3 prostate cancer following combined external beam radiotherapy and brachytherapy; Seattle experience	155	12.00 (21)
16	2009	MP	AAPM recommendations on dose prescription and reporting methods for permanent interstitial brachytherapy for prostate cancer: Report of task group 137	153	15.17 (12)
17	1999	IJROBP	What is the alpha/beta ratio for prostate cancer? Rationale for hypofractionated high-dose-rate brachytherapy	151	7.40 (56)
18	2005	RO	GEC/ESTRO-EAU recommendations on temporary brachytherapy using stepping sources for localised prostate cancer	138	9.30 (34)
19	2002	IJROBP	Long-term outcome after elective irradiation of the pelvic lymphatics and local dose escalation using high-dose-rate brachytherapy for locally advanced prostate cancer	138	7.70 (51)
20	2000	IJROBP	Rectal complications associated with transperineal interstitial brachytherapy for prostate cancer	137	7.09 (58)

Supplemental Table 2. Cont.

Rank	Year	Journal	Title	TC	CPYI (rank)
21	2001	UR	Pretreatment nomogram for predicting freedom from recurrence after permanent prostate brachytherapy in prostate cancer	136	7.45 (55)
22	2000	JU	Quality of life outcomes after brachytherapy for early stage prostate cancer	136	6.89 (59)
23	2003	IJROBP	Ten-year biochemical relapse-free survival after external beam radiation and brachytherapy for localized prostate cancer: The Seattle experience	125	7.77 (49)
24	2013	RO	GEC/ESTRO recommendations on high dose rate afterloading brachytherapy for localised prostate cancer: An update	123	18.92 (7)
25	2001	IJROBP	Potency after permanent prostate brachytherapy for localized prostate cancer	121	6.60 (62)
26	2008	IJROBP	Health-related quality of life 2 years after treatment with radical prostatectomy, prostate brachytherapy, or external beam radiotherapy in patients with clinically localized prostate cancer	119	10.66 (25)
27	2011	IJROBP	High-dose-rate monotherapy: Safe and effective brachytherapy for patients with localized prostate cancer	112	14.00 (14)
28	2001	JU	Long-term treatment related complications of brachytherapy for early prostate cancer: A survey of patients previously treated	112	6.11 (70)
29	2003	RO	High dose rate afterloading brachytherapy for prostate cancer: catheter and gland movement between fractions	111	6.83 (61)
30	2007	JU	An assessment of quality of life following radical prostatectomy, high dose external beam radiation therapy and brachytherapy iodine implantation as monotherapies for localized prostate cancer	110	8.80 (41)
31	2007	CA	Testosterone replacement for hypogonadism after treatment of early prostate cancer with brachytherapy	110	8.57 (45)
32	2011	IJROBP	Long-term outcome for clinically localized prostate cancer treated with permanent interstitial brachytherapy	104	12.00 (22)
33	2011	IJROBP	Fifteen-year biochemical relapse-free survival, cause-specific survival, and overall survival following I (125) prostate brachytherapy in clinically localized prostate cancer: Seattle experience	101	12.37 (20)
34	2010	AJCO-CCT	High-dose-rate prostate brachytherapy an excellent accelerated-hypofractionated treatment for favorable prostate cancer	101	11.02 (23)
35	2009	IJROBP	Multicenter analysis of effect of high biologic effective dose on biochemical failure and survival outcomes in patients with Gleason score 7-10 prostate cancer treated with permanent prostate brachytherapy	100	9.23 (36)
36	2000	IJROBP	High-dose-rate interstitial brachytherapy as a monotherapy for localized prostate cancer: Treatment description and preliminary results of a phase I/II clinical trial	99	5.17 (82)
37	2013	IJROBP	High-dose-rate interstitial brachytherapy as monotherapy for clinically localized prostate cancer: Treatment evolution and mature results	97	14.37 (13)
38	2009	RO	Urethral stricture following high dose rate brachytherapy for prostate cancer	97	9.17 (37)
39	2017	JAMA	Association between choice of radical prostatectomy, external beam radiotherapy, brachytherapy, or active surveillance and patient-reported quality of life among men with localized prostate cancer	96	34.91 (2)
40	2007	IJROBP	Transperineal injection of hyaluronic acid in anterior perirectal fat to decrease rectal toxicity from radiation delivered with intensity modulated brachytherapy or EBRT for prostate cancer patients	95	7.76 (50)
41	2003	LO	Surgery, brachytherapy, and external-beam radiotherapy for early prostate cancer	95	5.70 (74)
42	2005	RO	Long-term outcome of high dose rate brachytherapy in radiotherapy of localised prostate cancer	93	6.27 (68)
43	2007	CA	Magnetic resonance image-guided salvage brachytherapy after radiation in select men who initially presented with favorable-risk prostate cancer – A prospective phase 2 study	92	7.56 (54)

Supplemental Table 2. Cont.

Rank	Year	Journal	Title	TC	CPYI (rank)
44	2010	IJROBP	Long-term outcome and toxicity of salvage brachytherapy for local failure after initial radiotherapy for prostate cancer	90	9.64 (32)
45	2002	IJROBP	Magnetic resonance spectroscopic imaging-guided brachytherapy for localized prostate cancer	87	4.88 (86)
46	2004	SO	3-D conformal HDR brachytherapy as monotherapy for localized prostate cancer – A pilot study	86	5.49 (77)
47	2000	JCO	Matched-pair analysis of conformal high-dose-rate brachytherapy boost versus external-beam radiation therapy alone for locally advanced prostate cancer	86	4.45 (87)
48	1999	UR	Permanent brachytherapy as salvage treatment for recurrent prostate cancer	86	4.28 (92)
49	2010	JU	Quality of life after open or robotic prostatectomy, cryoablation or brachytherapy for localized prostate cancer	85	8.87 (40)
50	2003	IJROBP	The low alpha/beta ratio for prostate cancer: What does the clinical outcome of HDR brachytherapy tell	85	5.28 (79)
51	2000	IJROBP	Interim report of image-guided conformal high-dose-rate brachytherapy for patients with unfavorable prostate cancer: The William Beaumont Phase II dose-escalating trial	85	4.34 (90)
52	2006	IJROBP	Second malignancies after prostate brachytherapy: Incidence of bladder and colorectal cancers in patients with 15 years of potential follow-up	83	6.34 (66)
53	2003	JU	Conformal high dose rate brachytherapy improves biochemical control and cause specific survival in patients with prostate cancer and poor prognostic factors	83	4.96 (84)
54	2017	IJROBP	ASCENDE-RT: An analysis of treatment-related morbidity for a randomized trial comparing a low-dose-rate brachytherapy boost with a dose-escalated external beam boost for high- and intermediate-risk prostate cancer	82	32.80 (5)
55	2007	IJROBP	Feasibility of high-dose-rate brachytherapy salvage for local prostate cancer recurrence after radiotherapy: The University of California, San Francisco experience	81	6.35 (65)
56	2001	RA	Brachytherapy for prostate cancer: Endorectal MR imaging of local treatment-related changes	81	4.38 (89)
57	2005	IJROBP	Impact of short course hormonal therapy on overall and cancer specific survival after permanent prostate brachytherapy	77	5.25 (80)
58	2000	IJROBP	Needle displacement during HDR brachytherapy in the treatment of prostate cancer	77	3.90 (95)
59	2012	IJROBP	High-dose-rate brachytherapy alone for localized prostate cancer in patients at moderate or high risk of biochemical recurrence	76	9.81 (30)
60	2010	IJROBP	Outcomes following iodine-125 monotherapy for localized prostate cancer: the results of Leeds 10-year single-center brachytherapy experience	76	7.66 (52)
61	2005	JU	Urinary fistulas following external radiation or permanent brachytherapy for the treatment of prostate cancer	76	5.24 (81)
62	2006	IJROBP	High-dose irradiation for prostate cancer via a high-dose-rate brachytherapy boost: Results of a phase I to II study	75	5.70 (75)
63	2012	IJROBP	High-dose-rate brachytherapy as a monotherapy for favorable-risk prostate cancer: A phase II trial	74	9.65 (31)
64	2007	IJROBP	Brachytherapy versus prostatectomy in localized prostate cancer: Results of a French multicenter prospective medico-economic study	72	5.65 (76)
65	2013	CA	Population-based 10-year oncologic outcomes after low-dose-rate brachytherapy for low-risk and intermediate-risk prostate cancer	71	10.65 (26)
66	2012	BRA	High-dose-rate interstitial brachytherapy as monotherapy in one fraction and transperineal hyaluronic acid injection into the perirectal fat for the treatment of favorable stage prostate cancer: Treatment description and preliminary results	71	9.26 (35)

Supplemental Table 2. Cont.

Rank	Year	Journal	Title	TC	CPYI (rank)
67	2014	BJUI	Comparison of high-dose (86.4 Gy) IMRT vs combined brachytherapy plus IMRT for intermediate-risk prostate cancer	69	13.14 (17)
68	2009	RO	Justification for inter-fraction correction of catheter movement in fractionated high dose-rate brachytherapy treatment of prostate cancer	69	6.84 (60)
69	2009	IJROBP	An eight-year experience of HDR brachytherapy boost for localized prostate cancer: Biopsy and PSA outcome	68	6.33 (67)
70	2001	IJROBP	Five-year biochemical outcome following permanent interstitial brachytherapy for clinical T1-T3 prostate cancer	68	3.73 (97)
71	2011	IJROBP	Monotherapeutic high-dose-rate brachytherapy for prostate cancer: Five-year results of an extreme hypofractionation regimen with 54 Gy in nine fractions	67	7.88 (47)
72	2009	WJU	Radical retropubic prostatectomy versus brachytherapy for low-risk prostatic cancer: a prospective study	67	6.59 (63)
73	2006	IJROBP	Prostate-specific antigen (PSA) bounce and other fluctuations: Which biochemical relapse definition is least prone to PSA false calls? An analysis of 2,030 men treated for prostate cancer with external beam or brachytherapy with or without adjuvant androgen deprivation therapy	67	4.90 (85)
74	2013	IJROBP	Salvage HDR brachytherapy for recurrent prostate cancer after previous definitive radiation therapy: 5-year outcomes	66	10.15 (28)
75	2012	BRA	Brachytherapy provides comparable outcomes and improved cost-effectiveness in the treatment of low/intermediate prostate cancer	66	9.43 (33)
76	2009	UR	Population-based study of biochemical and survival outcomes after permanent I-125 brachytherapy for low- and intermediate-risk prostate cancer	66	6.19 (69)
77	2012	BJUI	Report of a consensus meeting on focal low dose rate brachytherapy for prostate cancer	65	8.30 (46)
78	2008	IJROBP	Second primary cancer after radiotherapy for prostate cancer – A SEER analysis of brachytherapy versus external beam radiotherapy	65	5.78 (71)
79	2003	UR	Why patients choose prostatectomy or brachytherapy for localized prostate cancer: Results of a descriptive survey	64	3.80 (96)
80	2015	JCO	ASCENDE-RT*: A multicenter, randomized trial of dose-escalated external beam radiation therapy (EBRT-B) versus low-dose-rate brachytherapy (LDR-B) for men with unfavorable-risk localized prostate cancer	63	13.26 (16)
81	2011	RO	Is single fraction 15 Gy the preferred high dose-rate brachytherapy boost dose for prostate cancer?	63	7.64 (53)
82	2012	JU	Updated results of magnetic resonance imaging guided partial prostate brachytherapy for favorable risk prostate cancer: Implications for focal therapy	62	8.65 (42)
83	2005	JU	Intermediate term biochemical-free progression and local control following (125) iodine brachytherapy for prostate cancer	62	4.20 (93)
84	2013	IJROBP	Direct 2-arm comparison shows benefit of high-dose-rate brachytherapy boost vs external beam radiation therapy alone for prostate cancer	60	8.89 (39)
85	2009	BRA	Transperineal injection of hyaluronic acid in the anterior perirectal fat to decrease rectal toxicity from radiation delivered with low-dose-rate brachytherapy for prostate cancer patients	60	5.71 (73)
86	1999	CA	The national cancer data base report on increased use of brachytherapy for the treatment of patients with prostate carcinoma in the US	60	2.99 (99)
87	2018	JAMA	Radical prostatectomy, external beam radiotherapy, or external beam radiotherapy with brachytherapy boost and disease progression and mortality in patients with Gleason score 9-10 prostate cancer	59	33.71 (3)
88	2014	CA	The rise and fall of prostate brachytherapy: Use of brachytherapy for the treatment of localized prostate cancer in the national cancer data base	59	10.89 (24)
89	2006	IJROBP	Disease-specific survival following the brachytherapy management of prostate cancer	59	4.29 (91)

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Rank	Year	Journal	Title	TC	CPYI (rank)
90	2012	IJROBP	High-dose-rate brachytherapy as monotherapy delivered in two factions within one day for favorable/intermediate-risk prostate cancer: Preliminary toxicity data	58	7.82 (48)
91	2012	JU	High dose brachytherapy as monotherapy for intermediate risk prostate cancer	58	7.33 (57)
92	2011	UR	Comparison of tumor control and toxicity outcomes of high-dose intensity-modulated radiotherapy and brachytherapy for patients with favorable risk prostate cancer	56	6.46 (64)
93	2006	RO	High-dose-rate brachytherapy without external beam irradiation for locally advanced prostate cancer	56	4.17 (94)
94	2003	IJROBP	High-dose-rate brachytherapy as monotherapy for localized prostate cancer: A retrospective analysis with special focus on tolerance and chronic toxicity	56	3.38 (98)
95	2000	IJROBP	Optimal radiotherapy for prostate cancer: Predictions for conventional external beam, IMRT, and brachytherapy from radiobiologic models	56	2.81 (100)
96	2009	JCO	Risk of death from prostate cancer after brachytherapy alone or with radiation, androgen suppression therapy, or both in men with high-risk disease	55	5.32 (78)
97	2009	BRA	Toxicity and early treatment outcomes in low- and intermediate-risk prostate cancer managed by high-dose-rate brachytherapy as a monotherapy	55	5.12 (83)
98	2016	JCO	Early toxicity in a randomized trial of high dose-rate (HDR) brachytherapy as monotherapy for low- and intermediate-risk prostate cancer	54	13.79 (15)
99	2010	IJROBP	Single-fraction high-dose-rate brachytherapy and hypofractionated external beam radiotherapy for men with intermediate-risk prostate cancer: Analysis of short- and medium-term toxicity and quality of life	54	5.73 (72)
100	2007	CA	Management of prostate cancer recurrences after radiation therapy-brachytherapy as a salvage option	54	4.44 (88)

TC – total cited; CPYI – citations per year index; IJROBP – *International Journal of Radiation Oncology, Biology, Physics*; JCO – *Journal of Clinical Oncology*; RO – *Radiotherapy and Oncology*; JU – *Journal of Urology*; CA – *Cancer*; UR – *Urology*; MP – *Medical Physics*; AJCO-CCT – *American Journal of Clinical Oncology – Cancer Clinical Trials*; JAMA – *JAMA – Journal of the American Medical Association*; LO – *Lancet Oncology*; SO – *Strahlentherapie und Onkologie*; RA – *Radiology*; BRA – *Brachytherapy*; BJUI – *BJU International*; WJU – *World Journal of Urology*