

# Geisinger Health Plan Policies and Procedure Manual

Policy: MP123

Section: Medical Benefit Policy

Subject: High Dose Rate (HDR) Temporary Brachytherapy for Treatment of Prostate Cancer

### **Applicable Lines of Business**

Commercial	X	СНІР	X
Medicare	Х	ACA	Х
Medicaid	Х		

I. Policy: High Dose Rate (HDR) Temporary Brachytherapy for Treatment of Prostate Cancer

### II. Purpose/Objective:

To provide a policy of coverage regarding High Dose Rate (HDR) Temporary Brachytherapy for Treatment of Prostate Cancer

### III. Responsibility:

- A. Medical Directors
- B. Medical Management

#### **IV. Required Definitions**

- 1. Attachment a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
- 2. Exhibit a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
- 3. Devised the date the policy was implemented.
- 4. Revised the date of every revision to the policy, including typographical and grammatical changes.
- 5. Reviewed the date documenting the annual review if the policy has no revisions necessary.

#### V. Additional Definitions

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

- a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
- b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
- c. in accordance with current standards of good medical treatment practiced by the general medical community.
- d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
- e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

## **Medicaid Business Segment**

Medically Necessary — A service, item, procedure, or level of care that is necessary for the proper treatment or management of an illness, injury, or disability is one that:

- Will, or is reasonably expected to, prevent the onset of an illness, condition, injury or disability.
- Will, or is reasonably expected to, reduce or ameliorate the physical, mental or developmental effects of an

illness, condition, injury or disability.

• Will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for Members of the same age

# **DESCRIPTION:**

Temporary brachytherapy with iridium-192, also known as high dose rate (HDR) brachytherapy differs from conventional lodine-125 or Palladium-103 brachytherapy by using high intensity radioactive seeds implanted temporarily as opposed to lower intensity seeds planted permanently.

## **INDICATIONS:**

Permanent radioactive seed implantation for prostate cancer with or without external beam radiation therapy (EBRT) is considered *medically necessary*.

HDR brachytherapy when used as monotherapy or in combination with EBRT for locally advanced prostate cancer (stage T2b – T3c, Gleason score 7-10, PSA level greater than 10 ng/ml) is considered *medically necessary*.

## **EXCLUSIONS:**

The Plan does **NOT** provide coverage for HDR temporary brachytherapy as a treatment of prostate cancer when used as salvage therapy because it is considered **experimental**, **investigational or unproven**.

# **Medicaid Business Segment:**

Any requests for services, that do not meet criteria set in the PARP, may be evaluated on a case by case basis.

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.

# CODING ASSOCIATED WITH: HDR Temporary Brachytherapy

The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at <a href="https://www.cms.gov">www.cms.gov</a> or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements.

- 77799 Unlisted procedure, clinical brachytherapy
- 55875 Transperineal placement of needles or catheters into prostate for interstitial radioelement application, with or without cystoscopy
- 55876 Placement of interstitial device(s) for radiation therapy guidance (eg, fiducial markers, dosimeter), percutaneous, prostate (via needle, any approach), single or multiple
- 55860 Exposure of prostate, any approach, for insertion of radioactive substance
- 76873 ultrasound, transrectal; prostate volume study for brachytherapy treatment planning (separate procedure)
- 77316 brachytherapy isodose plan; simple (calculation(s) made from 1 to 4 sources, or remote afterloading brachytherapy, 1 channel), includes basic dosimetry calculation(s)
- 77317 Brachytherapy isodose plan; intermediate (calculation[s] made from 5 to 10 sources, or remote afterloading brachytherapy, 2-12 channels), includes basic dosimetry calculation(s)
- 77318 Brachytherapy isodose plan; complex (calculation[s] made from over 10 sources, or remote afterloading brachytherapy, over 12 channels), includes basic dosimetry calculation(s)
- 77761 intracavity radiation source application; simple
- 77762 intracavity radiation source application; intermediate
- 77763 intracavity radiation source application; complex
- 77770 Remote afterloading high dose rate radionuclide interstitial or intracavitary brachytherapy, includes basic dosimetry, when performed; 1 channel
- 77771 2-12 channels
- 77772 over 12 channels
- 77778 Interstitial radiatio source application, complex, includes supervision, handling, loading of radiation source, when performed
- 77790 supervision, handling, loading of radiation source
- A9527 iodine I-125 sodium iodide

C2635: Brachytherapy source, high activity, non-stranded, palladium 103, greater than 2.2 mCl (NIST), per source

C2636: Brachytherapy linear source, non-stranded, palladium 103, per 1mm

C2638 brachytherapy source, stranded, iodine-125, per source

- C2639 Brachytherapy source, non-stranded, iodine-125, per source
- C1716 brachytherapy source, nonstranded, gold 198, per source
- C1717: Brachytherapy source, high dose rate iridium 192, per source
- C1719 brachytherapy source, nonstranded, non-high dose rate iridium 192, per source
- C1728 Catheter, Brachytherapy seed administration
- C2637 brachytherapy source, nonstranded, ytterbium-169, per source
- C2638 brachytherapy source, stranded, iodine 125, per source
- C2639 Brachytherapy source, nonstranded, iodine-125, per source
- C2640 brachytherapy source, stranded, palladium 103, per source
- C2641 brachytherapy source, nonstranded, palladium 103, per source
- C2642 Brachytherapy source, stranded, cesium-131, per source
- C2643 Brachytherapy source, nonstranded, cesium-131, per source
- C2645 bracytherapy planar source, palladium-103, per square millimeter
- 0395T High dose rate electronic brachytherapy, interstitial or intracavitary treatment, per fraction, includes basic dosimetry, when performed

Current Procedural Terminology (CPT®) © American Medical Association: Chicago, IL

## LINE OF BUSINESS:

Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.

### **REFERENCES:**

ECRI, HTAIS Hotline Response, Temporary Brachytherapy Using HDR-Ir192 for Treatment of Prostate Cancer. Updated 12/6/02. (43 refs)

Permanent and Temporary Prostate Implants (Brachytherapy). Fox Chase Cancer Center. <u>http://www.fccc.edu/oncology/radiation/implants.html</u>

Korb LJ, Brawer MK, "Modern brachytherapy for localized prostate cancers: The Northwest Hospital (Seattle) experience", Reviews in Urology.3 (1):51-60 Winter 2001.

Canadian Coordinating Office for Health Technology Assessment (CCOHTA), Brachytherapy for Prostate Cancer, Feb 2002.

Crook J, Lukka H, Klotz L, et. al., "Systemic overview of the evidence for brachytherapy in clinically localized prostate cancer", CMAJ 164(7):975-981. Apr 3, 2001.

Geisinger Clinic Technology Assessment Committee TAC Triage Group, <u>Temporary Brachytherapy Using HDR-Ir192 for</u> <u>Treatment of Prostate CA</u>. Nov. 2003.

Stevens MJ, Stricker PD, Saalfeld J et. al. Treatment of localized prostate cancer using a combination of high dose rate Iridium-192 brachytherapy and external beam irradiation: initial Australian experience. Australas Radiol. 2003 June;47(2):152-160.

Chaing PH, Fang FM, Jong WC et. al. High dose rate iridium-192 brachytherapy and external beam radiation therapy for prostate cancer with or without androgen ablation. Int J Urol. 2004 Mar;11(3):152-158.

Vicini F, Vargas C, Gustafson G, Edmindson G, Martinez A. High dose rate brachytherapy in the treatment of prostate cancer. World J Urol. 2003 Sep;21(4):220-228.

Pellizzon AC, Salvajoli JV, Maia MA, et. al. Late urinary morbidity with high dose rate prostate brachytherapy as a boost to conventional external beam radiation therapy for local and locally advanced prostate cancer. J Urol. 2004 Mar;171(3):1198.

Yoshioka Y, Nose T, Yoshida K, et. al. High dose rate brachytherapy as monotherapy for localized prostate cancer: a retrospective analysis with special focus on tolerance and chronic toxicity. Int J Radiat Oncol Biol Phys. 2003 May 1;56(1):213-220.

Up to Date Online, Radiation therapy for localized prostate cancer. http://www.utdol.com/application/topic.asp?file=prost\_ca/6680&type=A&selectedTitle=1~4

Astrom L, Pedersen D, Mercke C, Holmang S, Johansson KA. Long-term outcome of high dose rate brachytherapy in radiotherapy of localised prostate cancer. Radiother Oncol. 2005 Feb;74(2):157-61.

Deger S, Boehmer D, Roigas J, Schink T, Wernecke KD, Wiegel T, Hinkelbein W, Budach V, Loening SA. High dose rate (HDR) brachytherapy with conformal radiation therapy for localized prostate cancer. Eur Urol. 2005 Apr;47(4):441-8.

Niehoff P, Loch T, Nurnberg N, Galalae R, Egberts J, Kohr P, Kovacs G. Feasibility and preliminary outcome of salvage combined HDR brachytherapy and external beam radiotherapy (EBRT) for local recurrences after radical prostatectomy. Brachytherapy. 2005;4(2):141-5.

Jo Y, Junichi H, Tomohiro F, Yoshinari I, Masato F Radical prostatectomy versus high-dose rate brachytherapy for prostate cancer: effects on health-related quality of life. BJU Int. 2005 Jul;96(1):43-7.

ECRI HTAIS (online) Hotline Report. High-dose Rate (HDR) Brachytherapy for Prostate Cancer. Updated March 30, 2006.

ECRI HTAIS (online) Hotline Report. High-dose Rate (HDR) Brachytherapy for Prostate Cancer. Updated June 8, 2009

Tharp M, Hardacre M, Bennett R, Jones WT, Stuhldreher D, Vaught J. Prostate high-dose-rate brachytherapy as salvage treatment of local failure after previous external or permanent seed irradiation for prostate cancer. Brachytherapy. 2008 Jul-Sep;7(3):231-6.

National Comprehensive Cancer Network (NCCN). Prostate Cancer. Clinical practice guidelines in oncology v4.2023

Yaxley JW, et al. Long-term outcomes of high-dose-rate brachytherapy for intermediate- and high-risk prostate cancer with a median follow-up of 10 years. BJU Int. Sep 15 2016.

Prada PJ, et al. high-dose-rate interstitial brachytherapy as monotherapy in one fraction for the treatment of favorable stage prostate cancer: toxicity and long-term biochemical results. Radiother Oncol 2016 Apr 22;S0167-8140(16):31040-4.

Amini A, et al. Survival outcomes of combined external beam radiotherapy and brachytherapy vs. brachytherapy alone for intermediate-risk prostate cancer patients using the National Cancer Data Base. Brachytherapy 2016 Mar-Apr;15(2):136-46.

Hegde JV, Collins SP, Fuller DB, et al. A pooled analysis of biochemical failure in intermediate-risk prostate cancer following definitive stereotactic body radiotherapy (SBRT) or high-dose-rate brachytherapy (HDR-B) monotherapy. Am J Clin Oncol. Jun 17 2016.

Muralidhar V, et al. Brachytherapy boost and cancer-specific mortality in favorable high-risk versus other high-risk prostate cancer. J Contemp Brachytherapy 2016 Feb;8(1):1-6.

Yamazaki H, Masui K, et al. High-dose-rate brachytherapy with external beam radiotherapy versus low-dose-rate brachytherapy with or without external beam radiotherapy for clinically localized prostate cancer. Scientific Reports 2021;11:6165

Hoskin PJ, Rojas AM, Ostler PJ, et al. Randomised trial of external-beam radiotherapy alone or with high-dose-rate brachytherapy for prostate cancer: Mature 12-year results. Radiother Oncol. Jan 2021; 154: 214-219

Anderson EM, Kim S, Sandler HM, et al. High-dose-rate fractionated brachytherapy monotherapy for localized prostate cancer: a systematic review and meta-analysis. J Contemp Brachytherapy. Aug 2021; 13(4): 365-372

This policy will be revised as necessary and reviewed no less than annually.

Devised: 12/03

#### Revised: 1/05, 1/06 (coding, references); 1/07; 1/09 (coding), 12/12 (exclusions); 11/20 (revised indication)

#### Reviewed: 1/08, 12/09, 12/10, 12/11, 12/13, 12/14, 12/15, 12/16, 11/17, 11/18, 11/19, 11/21, 11/22, 11/23

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at https://www.geisinger.org/health-plan/providers/ghp-clinical-policies

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.