

# Protocol

## Cryoablation of Prostate Cancer

(70179)

Medical Benefit		Effective Date: 10/01/14	Next Review Date: 07/15
Preauthorization	No	Review Dates: 02/07, 02/08, 05/09, 01/10, 01/11, 01/12, 09/12, 07/13, 07/14	

*The following Protocol contains medical necessity criteria that apply for this service. It is applicable to Medicare Advantage products unless separate Medicare Advantage criteria are indicated. If the criteria are not met, reimbursement will be denied and the patient cannot be billed. **Preauthorization is not required.** Please note that payment for covered services is subject to eligibility and the limitations noted in the patient's contract at the time the services are rendered.*

### Description

Cryoablation, also known as cryotherapy or cryosurgery, of prostate cancer is a technique in which cryoprobes are inserted percutaneously into the prostate gland to rapidly freeze and thaw tissue causing necrosis. While most studies use total cryoablation, subtotal cryoablation is an emerging technique.

#### Background

Cryoablation is one of several methods available to treat clinically localized prostate cancer and may be considered an alternative to radical prostatectomy or radiotherapy. It also may be used for salvage of nonmetastatic relapse following initial therapy for clinically localized disease. Using percutaneously inserted cryoprobes, the glandular tissue is rapidly frozen and thawed such that tissue necrosis follows. Cryosurgical ablation is less invasive than radical prostatectomy and recovery time may be shorter. While external beam radiotherapy (EBRT) requires multiple treatments, typically only one treatment is required for cryoablation.

Subtotal prostate cryoablation is also being evaluated as a form of more localized therapy (referred to by some as focal or organ-preserving therapy or male lumpectomy) for small localized prostate cancers.

#### Regulatory Status

Cryoablation of prostate cancer uses available cryoablation systems and, as a surgical procedure, is not subject to regulation by the U.S. Food and Drug Administration (FDA).

A number of cryoablation systems and cryoprobes have general surgical FDA 510(k) marketing clearance. Examples of cryoablation devices that specifically mention treatment of prostate cancer in their marketing clearance are two Endocare® Inc. devices, Cryocare CS® and Cryocare CN2® systems, and two Galil Medical devices, Visual-ICE® Cryoablation System and IceRod® CX Cryoablation Needle.

#### Related Protocols

Stereotactic Radiosurgery and Stereotactic Body Radiation Therapy

Charged-Particle (Proton or Helium Ion) Radiation Therapy

### Policy (Formerly Corporate Medical Guideline)

Cryoablation of the prostate may be considered **medically necessary** as treatment of clinically localized (organ-confined) prostate cancer when performed:

- As initial treatment or

- As salvage treatment of disease that recurs following radiation treatment.

Subtotal prostate cryoablation is considered **investigational** in the treatment of prostate cancer.

### Medicare Advantage

For Medicare Advantage, cryosurgery of the prostate gland is considered **medically necessary** as primary treatment for patients with clinically localized prostate cancer, Stages T1-T3.

Salvage cryosurgery of the prostate after *radiation failure*, for recurrent cancer, is **medically necessary** for those patients with localized disease who:

1. Have failed a trial of radiation therapy as their primary treatment; and
2. Meet one of the following conditions: Stage T2B or below, Gleason score < 9, PSA < 8 ng/mL.

Cryosurgery as salvage therapy is **investigational** after failure of other therapies as the primary treatment.

Cryosurgery as salvage is only **medically necessary** after the failure of a trial of radiation therapy, under the conditions noted above.

---

Services that are the subject of a clinical trial do not meet our Technology Assessment Protocol criteria and are considered investigational. *For explanation of experimental and investigational, please refer to the Technology Assessment Protocol.*

It is expected that only appropriate and medically necessary services will be rendered. We reserve the right to conduct prepayment and postpayment reviews to assess the medical appropriateness of the above-referenced procedures. **Some of this Protocol may not pertain to the patients you provide care to, as it may relate to products that are not available in your geographic area.**

### References

We are not responsible for the continuing viability of web site addresses that may be listed in any references below.

1. Blue Cross and Blue Shield Association Technology Evaluation Center (TEC). Cryoablation for the primary treatment of clinically localized prostate cancer. TEC Assessments 2001; Volume 16, Tab 6.
2. Centers for Medicare and Medicaid Services. National Coverage Determination (NCD) for Cryosurgery of Prostate (230.9). 2001. Available online at: <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=123&bc=AgAAQAAAAAAA&ncdver=1>. Last accessed May, 2014.
3. Shelley M, Wilt TJ, Coles B et al. Cryotherapy for localised prostate cancer. Cochrane Database Syst Rev 2007; (3):CD005010.
4. Wilt TJ, Shamliyan T, Taylor B et al. Comparative Effectiveness of Therapies for Clinically Localized Prostate Cancer. Rockville (MD) 2008.
5. Chou R, Dana T, Bougatsos C et al. Treatments for Localized Prostate Cancer: Systematic Review to Update the 2002 U.S. Preventive Services Task Force Recommendation. Rockville (MD) 2011.

6. Grimm P, Billiet I, Bostwick D et al. Comparative analysis of prostate-specific antigen free survival outcomes for patients with low, intermediate and high risk prostate cancer treatment by radical therapy. Results from the Prostate Cancer Results Study Group. *BJU Int* 2012; 109 Suppl 1:22-9.
7. Chin JL, Ng CK, Touma NJ et al. Randomized trial comparing cryoablation and external beam radiotherapy for T2C-T3B prostate cancer. *Prostate Cancer Prostatic Dis* 2008; 11(1):40-5.
8. Chin JL, Al-Zahrani AA, Autran-Gomez AM et al. Extended followup oncologic outcome of randomized trial between cryoablation and external beam therapy for locally advanced prostate cancer (T2c-T3b). *J Urol* 2012; 188(4):1170-5.
9. Donnelly BJ, Saliken JC, Brasher PM et al. A randomized trial of external beam radiotherapy versus cryoablation in patients with localized prostate cancer. *Cancer* 2010; 116(2):323-30.
10. Robinson JW, Donnelly BJ, Siever JE et al. A randomized trial of external beam radiotherapy versus cryoablation in patients with localized prostate cancer: quality of life outcomes. *Cancer* 2009; 115(20):4695-704.
11. Bahn DK, Lee F, Badalament R et al. Targeted cryoablation of the prostate: 7-year outcomes in the primary treatment of prostate cancer. *Urology* 2002; 60(2 Suppl 1):3-11.
12. Donnelly BJ, Saliken JC, Ernst DS et al. Prospective trial of cryosurgical ablation of the prostate: five-year results. *Urology* 2002; 60(4):645-9.
13. Ellis DS. Cryosurgery as primary treatment for localized prostate cancer: a community hospital experience. *Urology* 2002; 60(2 Suppl 1):34-9.
14. Long JP, Bahn D, Lee F et al. Five-year retrospective, multi-institutional pooled analysis of cancer-related outcomes after cryosurgical ablation of the prostate. *Urology* 2001; 57(3):518-23.
15. Onik G. Image-guided prostate cryosurgery: state of the art. *Cancer Control* 2001; 8(6):522-31.
16. Robinson JW, Donnelly BJ, Saliken JC et al. Quality of life and sexuality of men with prostate cancer 3 years after cryosurgery. *Urology* 2002; 60(2 Suppl 1):12-8.
17. Aus G, Pileblad E, Hugosson J. Cryosurgical ablation of the prostate: 5-year follow-up of a prospective study. *Eur Urol* 2002; 42(2):133-8.
18. De La Taille A, Benson MC, Bagiella E et al. Cryoablation for clinically localized prostate cancer using an argon-based system: complication rates and biochemical recurrence. *BJU Int* 2000; 85(3):281-6.
19. Han KR, Cohen JK, Miller RJ et al. Treatment of organ confined prostate cancer with third generation cryosurgery: preliminary multicenter experience. *J Urol* 2003; 170(4 Pt 1):1126-30.
20. Prepelica KL, Okeke Z, Murphy A et al. Cryosurgical ablation of the prostate: high risk patient outcomes. *Cancer* 2005; 103(8):1625-30.
21. Aus G. Cryosurgery for prostate cancer. *J Urol* 2008; 180(5):1882-3.
22. Lian H, Guo H, Gan W et al. Cryosurgery as primary treatment for localized prostate cancer. *Int Urol Nephrol* 2011; 43(4):1089-94.
23. Ball AJ, Gambill B, Fabrizio MD et al. Prospective longitudinal comparative study of early health-related quality-of-life outcomes in patients undergoing surgical treatment for localized prostate cancer: a short-term evaluation of five approaches from a single institution. *J Endourol* 2006; 20(10):723-31.
24. Williams SB, Lei Y, Nguyen PL et al. Comparative effectiveness of cryotherapy vs. brachytherapy for localised prostate cancer. *BJU Int* 2011.

25. Mouraviev V, Spiess PE, Jones JS. Salvage Cryoablation for Locally Recurrent Prostate Cancer Following Primary Radiotherapy. *Eur Urol* 2012.
26. Punnen S, Cooperberg MR, D'Amico AV et al. Management of biochemical recurrence after primary treatment of prostate cancer: a systematic review of the literature. *Eur Urol* 2013; 64(6):905-15.
27. Wenske S, Quarrier S, Katz AE. Salvage Cryosurgery of the Prostate for Failure After Primary Radiotherapy or Cryosurgery: Long-term Clinical, Functional, and Oncologic Outcomes in a Large Cohort at a Tertiary Referral Centre. *Eur Urol* 2012.
28. Ng CK, Moussa M, Downey DB et al. Salvage cryoablation of the prostate: followup and analysis of predictive factors for outcome. *J Urol* 2007; 178(4 Pt 1):1253-7; discussion 57.
29. Ismail M, Ahmed S, Kastner C et al. Salvage cryotherapy for recurrent prostate cancer after radiation failure: a prospective case series of the first 100 patients. *BJU Int* 2007; 100(4):760-4.
30. Williams AK, Martinez CH, Lu C et al. Disease-free survival following salvage cryotherapy for biopsy-proven radio-recurrent prostate cancer. *Eur Urol* 2011; 60(3):405-10.
31. Truesdale MD, Cheetham PJ, Hruby GW et al. An evaluation of patient selection criteria on predicting progression-free survival after primary focal unilateral nerve-sparing cryoablation for prostate cancer: recommendations for follow up. *Cancer J* 2010; 16(5):544-9.
32. Bahn DK, Silverman P, Lee F, Sr. et al. Focal prostate cryoablation: initial results show cancer control and potency preservation. *J Endourol* 2006; 20(9):688-92.
33. Bahn D, de Castro Abreu AL, Gill IS et al. Focal Cryotherapy for Clinically Unilateral, Low-Intermediate Risk Prostate Cancer in 73 Men with a Median Follow-Up of 3.7 Years. *Eur Urol* 2012.
34. Ward JF, Jones JS. Focal cryotherapy for localized prostate cancer: a report from the national Cryo On-Line Database (COLD) Registry. *BJU Int* 2011.
35. National Cooperative Cancer Network. Prostate cancer. Clinical Practice Guidelines in Oncology, v.2.2014. Available online at: [http://www.nccn.org/professionals/physician\\_gls/pdf/prostate.pdf](http://www.nccn.org/professionals/physician_gls/pdf/prostate.pdf). Last accessed April 25, 2014.
36. Best practice policy statement on cryosurgery for the treatment of localized prostate cancer. Linthicum (MD): American Urological Association Education and Research, Inc.; 2008. 50 p. Available online at: <http://www.auanet.org/education/guidelines/cryosurgery.cfm>. Last accessed April 25, 2014.