



## Medical Policy

# Cellular Immunotherapy for Prostate Cancer

### Table of Contents

- [Policy: Commercial](#)
- [Policy: Medicare](#)
- [Authorization Information](#)
- [Coding Information](#)
- [Description](#)
- [Policy History](#)
- [Information Pertaining to All Policies](#)
- [References](#)

### Policy Number: 268

BCBSA Reference Number: 8.01.53

NCD/LCD: National Coverage Determination (NCD) for Autologous Cellular Immunotherapy Treatment (110.22)

### Related Policies

Gene-Based Tests for Screening, Detection, and/or Management of Prostate Cancer, #333

### Policy

#### Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Sipuleucel-T therapy may be considered **MEDICALLY NECESSARY** in the treatment of asymptomatic or minimally symptomatic, androgen-independent (castration-resistant) metastatic prostate cancer.

Sipuleucel-T therapy is **INVESTIGATIONAL** in all other situations, including but not limited to treatment of hormone-responsive prostate cancer, treatment of moderate to severe symptomatic metastatic prostate cancer, and treatment of visceral (liver, lung, or brain) metastases.

#### Medicare HMO Blue<sup>SM</sup> and Medicare PPO Blue<sup>SM</sup> Members

Medical necessity criteria and coding guidance can be found through the link below.

[National Coverage Determination \(NCD\) for Autologous Cellular Immunotherapy Treatment \(110.22\)](#)

### Prior Authorization Information

#### Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

#### Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

|  |                   |
|--|-------------------|
|  | <b>Outpatient</b> |
|--|-------------------|

|                                              |                                              |
|----------------------------------------------|----------------------------------------------|
| <b>Commercial Managed Care (HMO and POS)</b> | Prior authorization is <b>not required</b> . |
| <b>Commercial PPO and Indemnity</b>          | Prior authorization is <b>not required</b> . |
| <b>Medicare HMO Blue<sup>SM</sup></b>        | Prior authorization is <b>not required</b> . |
| <b>Medicare PPO Blue<sup>SM</sup></b>        | Prior authorization is <b>not required</b> . |

## CPT Codes / HCPCS Codes / ICD Codes

*Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.*

*Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.*

### CPT Codes

There is no specific CPT code for this service.

### HCPCS Codes

| <b>HCPCS codes:</b> | Code Description                                                                                                                                                 |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q2043               | Sipuleucel-T, minimum of 50 million autologous cd54+ cells activated with PAP-GM-CSF, including leukapheresis and all other preparatory procedures, per infusion |

## Description

### PROSTATE CANCER

Prostate cancer is the second leading cause of cancer-related deaths among American men, with an estimated incidence of 164,690 cases and an estimated number of 29,430 deaths in 2018. In most cases, prostate cancer is diagnosed at a localized stage and is treated with prostatectomy or radiotherapy. However, some patients are diagnosed with metastatic or recurrent disease after treatment of localized disease.

### Treatment

Androgen ablation is the standard treatment for metastatic or recurrent disease. Most patients who survive long enough eventually develop androgen-independent (castration-resistant) prostate cancer. At this stage of metastatic disease, docetaxel, a chemotherapeutic agent, has demonstrated a survival benefit of 1.9 to 2.4 months in randomized clinical trials. Chemotherapy with docetaxel causes adverse events in large proportions of patients, including alopecia, fatigue, neutropenia, neuropathy, and other symptoms. Trials evaluating docetaxel included both asymptomatic and symptomatic patients, and results have suggested a survival benefit for both groups. Because of the burden of treatment and its adverse events, most patients defer docetaxel treatment until cancer recurrence is symptomatic.

Cancer immunotherapy has been investigated as a treatment that could be instituted at the point of detection of androgen-independent metastatic disease before significant symptomatic manifestations have occurred. The quantity of cancer cells in the patient during this time is thought to be relatively low, and it is thought that an effective immune response to the cancer during this interval could effectively delay or prevent progression. Such a delay could allow a course of effective chemotherapy, such as docetaxel, to be deferred or delayed until necessary, thus providing an overall survival benefit.

## Summary

For individuals who have asymptomatic or minimally symptomatic, metastatic, castration-resistant prostate cancer who receive sipuleucel-T (Provenge), the evidence includes 3 RCTs and a systematic review of these RCTs. Relevant outcomes are overall survival, disease-specific survival, change in disease status, and treatment-related morbidity. The 2 earlier RCTs of sipuleucel-T were not specifically designed to demonstrate a difference in overall mortality but did show a survival

difference. The third RCT, which was designed to demonstrate a mortality difference, showed a similar improvement in overall survival. All 3 studies were consistent in demonstrating that sipuleucel-T does not delay time to a measurable progression of the disease. A meta-analysis of the 3 RCTs found significantly improved overall survival, but not the time to progression, with sipuleucel-T compared with placebo. Serious adverse events did not increase in the sipuleucel-T group. However, the available data suggested, but did not confirm, an increase in stroke risk; this risk is being evaluated in a postmarketing study. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have nonmetastatic, androgen-dependent prostate cancer who receive sipuleucel-T (Provenge), the evidence includes an RCT. Relevant outcomes are overall survival, disease-specific survival, change in disease status, and treatment-related morbidity. The RCT did not find a statistically significant difference between sipuleucel-T and a control in time to biochemical failure. The RCT was not designed to evaluate the impact of sipuleucel-T on mortality. The evidence is insufficient to determine the effects of the technology on health outcomes.

## Policy History

| Date           | Action                                                                                                                                                                                                                                               |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9/2018         | BCBSA National medical policy review. No changes to policy statements. New references added. Background and summary clarified.                                                                                                                       |
| 8/2017         | New references added from BCBSA National medical policy.                                                                                                                                                                                             |
| 9/2015         | BCBSA National policy review.<br>“Hormone-refractory” changed to the current clinically accepted term “castration-resistant” in the medically necessary policy statement and throughout the policy. Policy statements otherwise unchanged. 9/1/2015. |
| 10/2014        | Hormone refractory cancer clarified.                                                                                                                                                                                                                 |
| 9/2014         | New references added from BCBSA National medical policy.                                                                                                                                                                                             |
| 10/2013        | New references from BCBSA National medical policy.                                                                                                                                                                                                   |
| 11/2011-4/2012 | Medical policy ICD 10 remediation: Formatting, editing and coding updates.<br>No changes to policy statements.                                                                                                                                       |
| 9/2011         | Reviewed - Medical Policy Group – Urology, Obstetrics and Gynecology.<br>No changes to policy statements.                                                                                                                                            |
| 7/2011         | Reviewed - Medical Policy Group – Hematology and Oncology.<br>No changes to policy statements.                                                                                                                                                       |
| 1/1/2011       | Medical Policy 268 effective 1/1/2011 describing covered and non-covered indications.                                                                                                                                                                |

## Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

## References

1. National Cancer Institute, Surveillance Epidemiology and End Results Program. Cancer Stat Fact: Prostate Cancer. n.d.; <https://seer.cancer.gov/statfacts/html/prost.html>. Accessed July 5, 2018.
2. Southwest Oncology G, Berry DL, Moinpour CM, et al. Quality of life and pain in advanced stage prostate cancer: results of a Southwest Oncology Group randomized trial comparing docetaxel and estramustine to mitoxantrone and prednisone. *J Clin Oncol*. Jun 20 2006;24(18):2828-2835. PMID 16782921
3. Tannock IF, de Wit R, Berry WR, et al. Docetaxel plus prednisone or mitoxantrone plus prednisone for advanced prostate cancer. *N Engl J Med*. Oct 07 2004;351(15):1502-1512. PMID 15470213
4. Food and Drug Administration (FDA). April 29, 2010 Approval Letter - Provenge. 2010; <http://wayback.archive->

- it.org/7993/20170723023807/https://www.fda.gov/BiologicsBloodVaccines/CellularGeneTherapyProducts/ApprovedProducts/ucm210215.htm. Accessed July 2, 2018.
5. Yi R, Chen B, Duan P, et al. Sipuleucel-T and androgen receptor-directed therapy for castration-resistant prostate cancer: a meta-analysis. *J Immunol Res*. Dec 12 2016;2016:4543861. PMID 28058266
  6. Dendreon Corporation. Provenge® (sipuleucel-T) suspension for intravenous infusion prescribing information. n.d.; <http://www.provenge.com/>. Accessed June 29, 2018.
  7. Small EJ, Schellhammer PF, Higano CS, et al. Placebo-controlled phase III trial of immunologic therapy with sipuleucel-T (APC8015) in patients with metastatic, asymptomatic hormone refractory prostate cancer. *J Clin Oncol*. Jul 01 2006;24(19):3089-3094. PMID 16809734
  8. Higano CS, Schellhammer PF, Small EJ, et al. Integrated data from 2 randomized, double-blind, placebo-controlled, phase 3 trials of active cellular immunotherapy with sipuleucel-T in advanced prostate cancer. *Cancer*. Aug 15 2009;115(16):3670-3679. PMID 19536890
  9. Kantoff PW, Higano CS, Shore ND, et al. Sipuleucel-T immunotherapy for castration-resistant prostate cancer. *N Engl J Med*. Jul 29 2010;363(5):411-422. PMID 20818862
  10. Food and Drug Administration (FDA). Summary Basis for Regulatory Action: Provenge® (sipuleucel T). 2010; <http://wayback.archive-it.org/7993/20170723023808/https://www.fda.gov/downloads/BiologicsBloodVaccines/CellularGeneTherapyProducts/ApprovedProducts/UCM213114.pdf>. Accessed July 2, 2018.
  11. Schellhammer PF, Chodak G, Whitmore JB, et al. Lower baseline prostate-specific antigen is associated with a greater overall survival benefit from sipuleucel-T in the Immunotherapy for Prostate Adenocarcinoma Treatment (IMPACT) trial. *Urology*. Jun 2013;81(6):1297-1302. PMID 23582482
  12. Small EJ, Higano CS, Kantoff PW, et al. Time to disease-related pain and first opioid use in patients with metastatic castration-resistant prostate cancer treated with sipuleucel-T. *Prostate Cancer Prostatic Dis*. Sep 2014;17(3):259-264. PMID 24957547
  13. Beer TM, Bernstein GT, Corman JM, et al. Randomized trial of autologous cellular immunotherapy with sipuleucel-T in androgen-dependent prostate cancer. *Clin Cancer Res*. Jul 01 2011;17(13):4558-4567. PMID 21558406
  14. Cookson MS, Roth BJ, Dahm P, et al. Castration-resistant prostate cancer: AUA Guideline. *J Urol*. Aug 2013;190(2):429-438. PMID 23665272
  15. Cookson MS, Roth BJ, Dahm P, et al. Castration-resistant prostate cancer: AUA guideline. 2018; [http://www.auanet.org/guidelines/prostate-cancer-castration-resistant-\(2013-amended-2018\)#x524](http://www.auanet.org/guidelines/prostate-cancer-castration-resistant-(2013-amended-2018)#x524). Accessed July 2, 2018.
  16. National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology: prostate cancer. Version 3.2018. [https://www.nccn.org/professionals/physician\\_gls/pdf/prostate.pdf](https://www.nccn.org/professionals/physician_gls/pdf/prostate.pdf). Accessed June 28, 2018.
  17. Basch E, Loblaw DA, Oliver TK, et al. Systemic therapy in men with metastatic castration-resistant prostate cancer: American Society of Clinical Oncology and Cancer Care Ontario clinical practice guideline. *J Clin Oncol*. Oct 20 2014;32(30):3436-3448. PMID 25199761
  18. Virgo KS, Basch E, Loblaw DA, et al. Second-line hormonal therapy for men with chemotherapy-naïve, castration-resistant prostate cancer: American Society of Clinical Oncology Provisional Clinical Opinion. *J Clin Oncol*. Jun 10 2017;35(17):1952-1964. PMID 28441112
  19. Center for Medicare and Medicaid Services. National Coverage Determination (NCD) for Autologous Cellular Immunotherapy Treatment (110.22). 2011; <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=344&ncdver=1&bc=AAAAGAAAAAAA&>. Accessed June 28, 2018.