

Prior Authorization DRUG Guidelines

PROVENGE (Sipuleucel-T)

Effective Date: 1/28/14

Date Developed: 1/28/14 by Catherine Sanders, MD

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Provenge is an autologous Cellular Immunotherapy used in the treatment of metastatic prostate cancer. by stimulating an immune response against an antigen (PAP) expressed in most prostate cancer tissues. Peripheral blood is collected (~3 days prior to infusion) from the patient via leukapheresis, from which peripheral blood mononuclear cells (PBMCs) are isolated. Antigen presenting cell (APC) precursors, consisting of CD54-positive cells that include dendritic cells, are isolated from the PBMCs. The APCs are then activated (*in vitro*) with a recombinant human fusion protein, PAP-GM-CSF (also termed PA2024), composed of an antigen specific for prostate cancer, prostatic acid phosphatase (PAP) linked to granulocyte-macrophage colony-stimulating factor (GM-CSF) and cultured for ~40 hours. The final product, sipuleucel-T, is reinfused into the patient, inducing T-cell immunity to tumors that express PAP.

Pre-Authorization Criteria:

Provenge is used in the treatment of metastatic hormone-refractory prostate cancer in patients who are asymptomatic or minimally symptomatic. It is for autologous use only.

Prescribing and Access Restrictions:

Patients may receive Sipuleucel-T at a participating site. Physicians must go through an inservice and register to prescribe the treatment; patients must also complete an enrollment form. Information on registration and enrollment is available at 1-877-336-3736.

Dosing: Adult:

Note: Premedicate with oral acetaminophen 650 mg and an antihistamine (eg, diphenhydramine 50 mg) ~30 minutes prior to infusion. For autologous use only. Do not infuse until confirmation of product release has been received from the company.

Prostate cancer, metastatic: I.V.: Each dose contains ≥50 million autologous CD54+ cells (obtained through leukapheresis) activated with PAP-GM-CSF; administer doses at ~2 week intervals for a total of 3 doses (Kantoff, 2010)

Dosing: Geriatric:

Refer to adult dosing.

Dosing: Renal Impairment:

No dosage adjustment provided in manufacturer's labeling.

Dosing: Hepatic Impairment:

No dosage adjustment provided in manufacturer's labeling.

Dosing: Adjustment for Toxicity:

Acute infusion reaction: Interrupt or slow infusion rate (depending on the severity of infusion reaction); may require acetaminophen, I.V. H₁ and/or H₂ antagonists, or low-dose meperidine to manage acute symptoms.

Dosage Forms: U.S.:

Excipient information presented when available (limited, particularly for generics); consult specific product labeling.

Suspension, Intravenous [preservative free]:

Provenge: (250 mL)

Generic Equivalent Available: U.S.-No

Administration:

For autologous use only; the identity of the patient must be matched to the patient identifiers on the infusion bag and on the "Cell Product Disposition Form" prior to infusion. Do not infuse until confirmation of product release has been received from the company. Prior to infusion, inspect bag for signs of leaks (do not administer if leaking). Gently mix to resuspend contents; inspect for clumps or clotting; small clumps should disperse with the gentle mixing; do not administer if clumps remain. A cell filter should NOT be used for administration. If product is expired, do NOT infuse. For I.V. infusion only. Infuse over ~60 minutes; infuse the entire contents of the bag. If infusion is interrupted, do not resume if bag is retained at room temperature for >3 hours. Observe patient for at least 30 minutes after infusion.

Adverse Reactions:

Note: initial infusion-related events usually present within the first 24 hours after administration.

>10%: chills, fatigue, fever, headache, dizziness, pain, nausea, vomiting, anemia, back pain, myalgia, weakness, acute infusion reaction, citrate toxicity

Other Serious Less Common Reactions: hemorrhagic stroke, ischemic stroke

References:

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2. Burch PA, Breen JK, Bruckner JC, et al, "Priming Tissue-Specific Cellular Immunity in a Phase I Trial of Autologous Dendritic Cells for Prostate Cancer," *Clin Cancer Res*, 2000, 6(6):2175-82. [PubMed [10873066](#)]
3. Burch PA, Croghan GA, Gastineau DA, et al, "Immunotherapy (APC8015, Provenge®) Targeting Prostatic Acid Phosphatase Can Induce Durable Remission of Metastatic Androgen-Independent Prostate Cancer: A Phase 2 Trial," *Prostate*, 2004, 60(3):197-204. [PubMed [15176049](#)]
4. 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*, 2009, 115(16):3670-9. [PubMed [19536890](#)]
5. Kantoff PW, Higano CS, Shore ND, et al, "Sipuleucel-T Immunotherapy for Castration-Resistant Prostate Cancer," *N Engl J Med*, 2010, 363(5):411-22. [PubMed [20818862](#)]
6. Patel PH and Kockler DR, "Sipuleucel-T: A Vaccine for Metastatic, Asymptomatic, Androgen-Independent Prostate Cancer," *Ann Pharmacother*, 2008, 42(1):91-8. [PubMed [18094343](#)]

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8. 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*, 2006, 24(19):3089-94. [PubMed [16809734](#)]
9. www.upToDate.com: Sipuleucel-T: Drug Information
10. www.epocrates.com: Provenge Drug Information

Revision History:

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