

POLICY: Oncology – Proleukin® (aldesleukin injection for intravenous use – Prometheus Laboratories)

DATE REVIEWED: 12/18/2019

OVERVIEW

Proleukin, a human recombinant interleukin-2 product, is indicated for the treatment of adults with metastatic renal cell carcinoma (mRCC), and adults with metastatic melanoma.¹

Guidelines

The National Comprehensive Cancer Network (NCCN) guidelines on Kidney Cancer (Version 2.2020 – August 5, 2019) recommend Proleukin as a single agent for first-line (Category 2A) and subsequent (Category 2B) therapy for patients with relapsed or stage IV disease and clear cell histology.^{2,3}

The NCCN guidelines on Cutaneous Melanoma (Version 3.2019 – October 22, 2019) recommend Proleukin for unresectable or metastatic disease as a single agent for second-line or subsequent therapy for disease progression or after maximum clinical benefit from BRAF targeted therapy (Category 2A).^{2,4} Proleukin may be considered for patients with small brain tumors and without significant peritumoral edema (Category 2B) or for intralesional therapy as primary or second-line treatment of unresectable stage III disease with clinical or satellite/in-transit metastases, or local satellite/in-transit recurrence (Category 2B).

The NCCN guidelines on Hematopoietic Cell Transplantation (Version 1.2020 – October 30, 2019) recommend Proleukin as additional therapy, in combination with systemic corticosteroids, for steroid-refractory chronic graft-vs-host disease.^{2,5}

POLICY STATEMENT

Prior authorization is recommended for medical benefit coverage of Proleukin. Approval is recommended for those who meet the Criteria and Dosing for the listed indication(s). Extended approvals are allowed if the patient continues to meet the Criteria and Dosing. Requests for doses outside of the established dosing documented in this policy will be considered on a case-by-case basis by a clinician (i.e., Medical Director or Pharmacist). All approvals are provided for the duration noted below. In cases where the approval is authorized in months, 1 month is equal to 30 days.

Because of the specialized skills required for evaluation and diagnosis of patients treated with Proleukin as well as the monitoring required for adverse events and long-term efficacy, approval requires Proleukin to be prescribed by or in consultation with a physician who specializes in the condition being treated.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Proleukin is recommended in those who meet the following criteria:

FDA-Approved Indications

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1. **Kidney Cancer.** Approve for 6 months if the patient meets the following criteria (A, B, C, D, and E):
 - A) The patient is ≥ 18 years of age; AND
 - B) The patient has relapsed or metastatic disease; AND
 - C) The patient has clear cell histology; AND
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- D) Proleukin will be used as a single agent; AND
- E) Proleukin is prescribed by or in consultation with an oncologist.

Dosing. Approve the following dosing regimen (A, B, and C):

- A) Each dose must not exceed 600,000 International Units/kg (0.037 mg/kg) given intravenously no more frequently than three times daily for a maximum of 14 doses to complete one cycle of treatment; AND
- B) A second cycle is given after a minimum of 9 days of rest to complete a course of therapy; AND
- C) Each additional course of therapy is given after at least 7 weeks of rest.¹

2. Cutaneous Melanoma. Approve for the duration noted if the patient meets ONE of the following (A or B):

- A) Intravenous Therapy. Approve for 6 months if the patient meets the following criteria (i, ii, iii, iv, and v):
 - i. The patient is ≥ 18 years of age; AND
 - ii. The patient has metastatic or unresectable disease; AND
 - iii. The patient has tried at least one other systemic therapy; AND
 - iv. Proleukin will be used as a single agent; AND
 - v. Proleukin is prescribed by or in consultation with an oncologist.
- B) Intralesional Therapy. Approve for 6 months if the patient meets the following criteria (i, ii, and iii):
 - i. The patient is ≥ 18 years of age; AND
 - ii. Proleukin will be directly injected into metastatic, recurrent, or unresectable cutaneous, subcutaneous, or nodal lesions; AND
 - iii. The agent is prescribed by or in consultation with an oncologist.

Dosing. Approve one of the following dosing regimens (A or B):

- A) Intravenous Therapy (i, ii, and iii):
 - i. Each dose must not exceed 600,000 International Units/kg (0.037 mg/kg) given no more frequently than three times daily for a maximum of 14 doses to complete one cycle of treatment; AND
 - ii. A second cycle is given after a minimum of 9 days of rest to complete a course of therapy; AND
 - iii. Each additional course of therapy is given after at least 7 weeks of rest;¹ OR
- B) Intralesional Therapy (i and ii):
 - i. The dose to each individual lesion must not exceed 6 million International Units given by intralesional injection; AND
 - ii. The dose is given no more frequently than three times weekly.^{6,7}

Other Uses with Supportive Evidence

3. Graft-versus-Host Disease. Approve for 1 year if the patient meets the following criteria (A, B, C, and D):

- A) The patient has chronic graft-vs-host disease; AND
 - B) According to the prescriber, the patient has steroid-refractory disease; AND
 - C) Proleukin will be used in combination with systemic corticosteroids; AND
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- D) Proleukin will be prescribed by or in consultation with an oncologist or a physician associated with a transplant center.

Dosing. Approve the following dosing regimen: Each dose must not exceed 1 million International Units administered subcutaneously no more frequently than once daily.⁸

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Proleukin has not been shown to be effective, or there are limited or preliminary data or potential safety concerns that are not supportive of general approval for the following conditions.

1. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Proleukin® injection for intravenous use [prescribing information]. San Diego, CA: Prometheus Laboratories Inc.; August 2018.
2. The NCCN Drugs and Biologics Compendium. © 2019 National Comprehensive Cancer Network, Inc. Available at: <http://www.nccn.org>. Accessed on November 18, 2019. Search term: aldesleukin.
3. The NCCN Kidney Cancer Clinical Practice Guidelines (Version 2.2020 – August 5, 2019). © 2019 National Comprehensive Cancer Network, Inc. Available at: <http://www.nccn.org>. Accessed November 18, 2019.
4. The NCCN Cutaneous Melanoma Clinical Practice Guidelines (Version 3.2019 – October 22, 2019). © 2019 National Comprehensive Cancer Network, Inc. Available at: <http://www.nccn.org>. Accessed November 18, 2019.
5. The NCCN Hematopoietic Cell Transplantation Clinical Practice Guidelines (Version 1.2020 – October 30, 2019). © 2019 National Comprehensive Cancer Network, Inc. Available at: <http://www.nccn.org>. Accessed November 18, 2019.
6. Radny P, Caroli UM, Bauer J, et al. Phase II trial of intralesional therapy with interleukin-2 in soft-tissue melanoma metastases. *Br J Cancer*. 2003;89:1620-1626.
7. Weide B, Derhovanessian E, Pflugfelder A, et al. High response rate after intratumoral treatment with interleukin-2. Results from a Phase 2 study in 51 patients with metastasized melanoma. *Cancer*. 2010;116:4139-4146.
8. Koreth J, Kim HT, Jones KT, et al. Efficacy, durability, and response predictors of low-dose interleukin-2 therapy for chronic graft-versus-host disease. *Blood*. 2016;128:130-137.

HISTORY

Type of Revision	Summary of Changes	Date Reviewed
New Policy	--	12/18/2019