Clinical Policy: Lifileucel (Amtagvi)

Reference Number: PA.CP.PHAR.598
Effective Date: 05/2024
Last Review Date: 04/2024

Description

Lifileucel (Amtagvi®) is an autologous tumor infiltrating lymphocyte (TIL) cell therapy.

FDA Approved Indication(s)

Amtagvi is indicated for the treatment of adult patients with unresectable or metastatic melanoma previously treated with a programmed death receptor-1 (PD-1) blocking antibody, and if BRAF V600 mutation positive, a BRAF inhibitor with or without MEK inhibitor*.

**This indication is approved under accelerated approval based on objective response rate (ORR). Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial(s).*

Policy/Criteria

Provider must submit documentation (such as office chart notes, lab results or other clinical information) supporting that member has met all approval criteria.

It is the policy of PA Health & Wellness® that Amtagvi is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Melanoma (must meet all)**:**

1. Diagnosis of unresectable or metastatic melanoma;
2. Prescribed by or in consultation with an oncologist;
3. Age ≥ 18 years;
4. Documentation of disease progression, inadequate response, or intolerance while on the following regimens (a and b) (*see Appendix B*):
   a. Anti-PD-1 or PD-L1 therapy;
   b. If BRAF V600 mutation positive: BRAF inhibitor therapy with or without a MEK inhibitor;
5. Amtagvi is prescribed in combination with IL-2* therapy (e.g., aldesleukin);
   **Prior authorization may be required for IL-2 therapy*
6. Documentation that member has at least one resectable lesion (or aggregate of lesions resected) of a minimum 1.5 cm in diameter (*see Appendix D)*;
7. Documentation that the member's melanoma is not of known uveal/ocular origin *(see Appendix D)*;
8. Member has not received an organ allograft or treatment with prior TIL therapy or prior chimeric antigen receptor T-cell (CAR-T) therapy (e.g., Breyanzi®, Kymriah®, Tecartus®, Yescarta®, Carvykti®) *(see Appendix D)*;
9. Request meets both of the following (a and b):
   a. Dose contains a minimum of 7.5×10^9 viable T cells;
   b. Dose does not exceed a single administration of 72×10^9 viable T cells.

Approval duration: 3 months ***(1 dose only, with up to 6 doses of IL-2 therapy [aldesleukin])***

B. Other diagnoses/indications

1. Refer to the off-label use policy if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53

II. Continued Therapy

A. Melanoma

1. Continued therapy will not be authorized as Amtagvi is indicated to be dosed one time only.

Approval duration: Not applicable

B. Other diagnoses/indications (must meet 1 or 2)**:**

1. Currently receiving medication via PA Health & Wellness benefit and documentation supports positive response to therapy or the Continuity of Care policy (PA.LTSS.PHAR.01) applies.
   Approval duration: Duration of request or 12 months (whichever is less); or
2. Refer to the off-label use policy if diagnosis is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized): PA.CP.PMN.53

III. Diagnoses/Indications for which coverage is NOT authorized:

A. Non-FDA approved indications, which are not addressed in this policy, unless there is sufficient documentation of efficacy and safety according to the off label use policies – PA.CP.PMN.53

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

BRAF: B-Raf proto-oncogene, serine/threonine kinase
CAR: chimeric antigen receptor
FDA: Food and Drug Administration
IL-2: interleukin-2
MEK: mitogen-activated extracellular signal-regulated kinase
PD-1: programmed death receptor-1
PD-L1: programmed death-ligand 1
TIL: tumor infiltrating lymphocytes

Appendix B: Therapeutic Alternatives

This table provides a listing of preferred alternative therapy recommended in the approval criteria. The drugs listed here may not be a formulary agent and may require prior authorization.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
PD-1/PDL-1 targeted combination therapy (Opdivo® with Yervoy®, Opdualag®)	Varies	Varies
PD-1/PDL-1 targeted monotherapy (Opdivo, Keytruda®)	Varies	Varies
PD-1/PDL-1 and BRAF-MEK combintation targeted therapy (Tecentriq®/Cotellic®/ Zelboraf®)	Varies	Varies

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
BRAF-MEK combination targeted therapy (Cotellic®/ Zelboraf®, Tafinlar®/ Mekinist®, Mektovi®/Braftovi®)	Varies	Varies

Therapeutic alternatives are listed as Brand name® (generic) when the drug is available by brand name only and generic (Brand name®) when the drug is available by both brand and generic.

Appendix C: Contraindications/Boxed Warnings

- Contraindication(s): none reported
- Boxed warning(s): treatment-related mortality, prolonged severe cytopenia, severe infection, cardiopulmonary and renal impairment

Appendix D: General Information

- Amtagvi requires the administration of IL-2 (e.g., aldesleukin) to stimulate TIL cells after infusion.
- One resectable lesion (or aggregate of lesions resected) of a minimum 1.5 cm in diameter is required because TIL therapy involves resectioning a tumor and amplifying the T-cells within the resectioned tumor. If a smaller tumor/aggregate tumor size was used, then there may not be adequate volume of T-cells after amplification, resulting in a less efficacious product.
- The safety and efficacy of Amtagvi is unknown in patients with melanoma of uveal/ocular origin and patients with previous organ allograft or prior cell transfer therapy.

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
Melanoma	Single dose IV infusion of 7.5×10^9 to 72×10^9 viable T cells	72×10^9 viable T cells

VI. Product Availability

Infusion bag(s): frozen suspension of tumor-derived T-cells labeled for specific recipient

VII. References

1. Amtagvi Prescribing Information. Philadelphia, PA, NJ: Iovance Biotherapeutics Manufacturing LLC; February 2023. Available at: https://www.fda.gov/media/176417/download?attachment. Accessed February 21, 2023.
2. Sarnaik AA, Hamid O, Khushalani NI, et al. Lifileucel, a tumor-infiltrating lymphocytes therapy, in metastatic melanoma. *J Clin Oncol* 2021 39:2656-2666. DOI: 10.1200/JCO.21.00612.
3. National Comprehensive Cancer Network. Melanoma: Cutaneous v1.2024. Available at: https://www.nccn.org/professionals/physician_gls/pdf/cutaneous_melanoma.pdf. Accessed March 13, 2024.
4. ClinicalTrials.gov. Study of Lifileucel (LN-144), Autologous tumor infiltrating lymphocytes, in the treatment of patients with metastatic melanoma (LN-144). Available at: https://clinicaltrials.gov/ct2/show/NCT02360579. Accessed March 13, 2024.

Coding Implications
Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
C9399	Unclassified drugs or biologicals
J9999	Not otherwise classified, antineoplastic drugs

Reviews, Revisions, and Approvals	Date
Policy created	04/2024