Clinical Policy: Lutetium Lu 177 Dotatate (Lutathera)

Reference Number: PA.CP.PHAR.384
Effective Date: 10/2018
Last Review Date: 07/2023

Coding Implications
Revision Log

Description
Lutetium Lu 177 dotatate (Lutathera®) is a radiolabeled somatostatin analog.

FDA Approved Indication(s)
Lutathera is indicated for the treatment of somatostatin receptor-positive gastroenteropancreatic neuroendocrine tumors (NETs), including foregut, midgut, and hindgut NETs in adults.

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 Lutathera is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

A. Neuroendocrine Tumors (must meet all)**:**

1. Diagnosis of one of the following somatostatin receptor-positive NETs (a, b or c):
   a. Gastrointestinal tract or pancreas;
   b. Lung or thymus (off-label);
   c. Well-differentiated, grade 3 NET (off-label);
2. Prescribed by or in consultation with an oncologist;
3. Age ≥ 18 years;
4. One of the following (a, b, or c):
   a. Disease is recurrent, metastatic, locally advanced, or unresectable;
   b. For well-differentiated, grade 3 NETs only: Disease has all of the following characteristics (i, ii, and iii):
      i. Metastatic or locally advanced;
      ii. Unresectable;
      iii. Favorable biology (e.g., relatively low Ki-67 [< 55%]);
   c. Member has poorly controlled carcinoid syndrome associated with lung or thymus NET;
5. One of the following (a or b):
   a. Member experienced disease progression while on a somatostatin analog (e.g., octreotide, lanreotide);
   b. Member has a well-differentiated, grade 3 NET;
6. Dose does not exceed 7.4 GBq (200 mCi) every 8 weeks (± 1 week), up to a total of 4 doses.

Approval duration: 36 weeks (no more than 4 total doses)

B. Pheochromocytoma/Paraganglioma (off-label) (must meet all)**:**
1. Diagnosis of a somatostatin receptor-positive pheochromocytoma/paraganglioma;
2. Prescribed by or in consultation with an oncologist;
3. Disease is metastatic or locally unresectable;
4. Dose does not exceed 7.4 GBq (200 mCi) every 8 weeks, up to a total of 4 doses.

Approval duration: 36 weeks (no more than 4 total doses)

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

II. Continued Therapy

A. All Indications in Section I (must meet all)**:**
1. Currently receiving medication via PA Health & Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care Policy (PA.LTSS.PHAR.01) applies;
2. Member is responding positively to therapy;
3. Member has not received ≥ 4 doses of Lutathera;
4. If request is for a dose increase, new dose does not exceed 7.4 GBq (200 mCi) every 8 weeks (± 1 week), up to a total of 4 doses.

Approval duration: 36 weeks (no more than 4 total doses)

B. Other diagnoses/indications (must meet 1 or 2)**:**
1. Currently receiving medication via PA Health & Wellness benefit or member has previously met all initial approval criteria or the Continuity of Care Policy (PA.LTSS.PHAR.01) applies.
   Approval duration: Duration of request or 6 months; 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

CT: computed tomography
FDA: Food and Drug Administration
GEP-NET: gastroenteropancreatic neuroendocrine tumor
mCi: millicurie
NCCN: National Comprehensive Cancer Network

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 for all relevant lines of business and may require prior authorization.

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
Somatuline® Depot (lanreotide)	90 – 120 mg SC every 4 weeks	120 mg/month
Sandostatin® LAR Depot (octreotide LAR)*	20 – 30 mg IM once monthly (20 mg may be used for pancreatic NETs)	30 mg/month
Sandostatin® (octreotide)	150 – 250 mcg SC TID	450 mcg/day

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.
**Off-label for the treatment of NETs (octreotide is only FDA-approved for the treatment of symptoms associated with carcinoid tumors) – NET dosing recommendations are per the NCCN guidelines*

Appendix C: Contraindications/Boxed Warnings
Not applicable

Appendix D: General Information

- Somatostatin receptor expression can be detected by somatostatin receptor-based imaging, which includes ^{68}Ga-dotatate PET/CT (preferred per the NCCN) and somatostatin receptor scintigraphy.
- Use of Lutathera with somatostatin analogs:
  - Before initiating Lutathera: Long-acting somatostatin analogs (e.g., long-acting octreotide) should be discontinued for at least 4-6 weeks prior to initiation of Lutathera. Short-acting octreotide can be administered as needed up to 24 hours prior to initiating Lutathera.
  - During Lutathera: Administer long-acting octreotide 30 mg intramuscularly 4 to 24 hours after each Lutathera dose and short-acting octreotide for symptomatic management.
  - Following Luthathera: Continue long-acting octreotide 30 mg intramuscularly every 4 weeks after completing Lutathera until disease progression or for up to 18 months following treatment initiation.

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
GEP-NET	7.4 GBq (200 mCi) IV every 8 weeks (± 1 week)for a total of 4 doses	7.4 BGq (200 mCi)/dose IV (4 doses)
NET of lung or thymus origin, pheochromacytoma, paraganglioma*		

**Off-label – dosing recommendations are per the NCCN guidelines*

VI. Product Availability

Single-dose vial for injection: 370 MBq/mL (10 mCi/mL)

VII. References

1. Lutathera Prescribing Information. Millburn, NJ: Advanced Accelerator Applications USA, Inc.; March 2023. Available at: https://www.lutathera.com. Accessed May 18, 2023.
2. National Comprehensive Cancer Network. Neuroendocrine and Adrenal Tumors. Version 4.2022. Available at:

https://www.nccn.org/professionals/physician_gls/pdf/neuroendocrine.pdf. Accessed May 18, 2023.
3. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at: http://www.nccn.org/professionals/drug_compendium. Accessed May 18, 2023.
4. Strosberg J, El-Haddad G, Wolin E, et al. Phase 3 trial of ^{177}Lu-dotatate for midgut neuroendocrine tumors. N Engl J Med. 2017; 376(2): 125-135.
5. Brabander T, van der Zwan WA, Teunissen JJM, et al. Long-term efficacy, survival, and safety of [^{177}Lu-DOTA^{0},Tyr^{3}]octreotate in patients with gastroenteropancreatic and bronchial neuroendocrine tumors. Clin Cancer Res. 2017; 1-8.
6. Clinical Pharmacology [database online]. Elsevier, Inc.; 2023. Available at: https://www.clinicalkey.com/pharmacology/.

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
A9513	Lutetium Lu 177, dotatate, therapeutic, 1 millicurie (mCi)

Reviews, Revisions, and Approvals	Date	P&T Approval Date
Policy created.	10/2018	
3Q 2019 annual review: No changes per Statewide PDL implementation 01-01-2020	07/2019	
3Q 2020 annual review: added age limit; revised criteria requiring disease progression while on a long-acting somatostatin analog to allow short and long acting somatostatin analogs; removed "Member has not received ≥ 4 doses of Lutathera" from the Initial Approval Criteria section since it doesn't apply when a request is for initial therapy; updated Appendix B and D; references reviewed and updated.	07/2020	
3Q 2021 annual review: revised criteria requiring disease progression while on a long-acting somatostatin analog to allow short and long acting somatostatin analogs; updated Appendix B and D; references reviewed and updated.	07/2021	
3Q 2022 annual review: no significant changes; references reviewed and updated.	07/2022	
3Q 2023 annual review: per NCCN – for NET, added coverage for well-differentiated grade 3 NET and carcinoid syndrome, and for NETs other than the aforementioned two, revised required qualifiers to include recurrent or unresectable; for pheochromocytoma/paraganglioma; revised dosing in criteria,	07/2023	

Reviews, Revisions, and Approvals	Date	P&T Approval Date
approval duration (from 32 weeks to 36 weeks), and Section V to reflect updated PI, which allows for every 8 week dosing "± 1 week"; updated Appendix D regarding concurrent SSA use per updated PI; references reviewed and updated.		