Clinical Policy: Carfilzomib (Kyprolis)

Reference Number: LA.PHAR.309

Effective Date: 02.03.24

Last Review Date: 05.07.24

Line of Business: Medicaid

Coding Implications
Revision Log

See <u>Important Reminder</u> at the end of this policy for important regulatory and legal information.

Please note: This policy is for medical benefit

Description

Carfilzomib (Kyprolis®) is a proteasome inhibitor.

FDA Approved Indication(s)

Kyprolis is indicated

- For the treatment of adult patients with relapsed or refractory multiple myeloma (MM) who have received one to three lines of therapy in combination with:
 - o Lenalidomide and dexamethasone or
 - o Dexamethasone or
 - o Daratumumab and dexamethasone or
 - o Daratumumab and hyaluronidase-fihj and dexamethasone or
 - o Isatuximab and dexamethasone
- As a single agent for the treatment of adult patients with relapsed or refractory MM who have received one or more lines of therapy.

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 Louisiana Healthcare Connections that Kyprolis is **medically necessary** when the following criteria are met:

I. Initial Approval Criteria

- **A. Multiple Myeloma** (must meet all):
 - 1. Diagnosis of MM;
 - 2. Prescribed by or in consultation with an oncologist;
 - 3. Age \geq 18 years;
 - 4. For primary therapy, Kyprolis is prescribed in one of the following ways (a, b, or c):*
 - a. In combination with dexamethasone and lenalidomide;
 - b. In combination with dexamethasone and cyclophosphamide;
 - c. In combination with dexamethasone, lenalidomide, and Darzalex® (daratumumab);
 - *Prior authorization may be required.
 - 5. For maintenance therapy, Kyprolis is prescribed in combination with lenalidomide;

- 6. For previously treated multiple myeloma for relapsed or refractory disease, Kyprolis is prescribed in one of the following ways (a h):*
 - a. In combination with dexamethasone or with lenalidomide plus dexamethasone in patients who have received one or three lines of therapy (see Appendix B for examples of prior therapy);
 - b. As a single agent in patients who have received one or more lines of therapy;
 - c. In combination with Darzalex[®] (daratumumab) or Darzalex Faspro[™] (daratumumab/hyaluronidase-fihj) and dexamethasone in patients who have received one or three lines of therapy;
 - d. In combination with Sarclisa (isatuximab-irfc) and dexamethasone in patients who have received one or three lines of therapy;
 - e. In combination with Xpovio (Selinexor) and dexamethasone for relapse or progressive disease;
 - f. In combination with dexamethasone and cyclophosphamide, with or without thalidomide, for relapse or progressive disease;
 - g. In combination with pomalidomide and dexamethasone for patients who have received at least two prior therapies, including an immunomodulatory agent and a proteasome inhibitor and who have demonstrated disease progression on or within 60 days of completion of the last therapy;
 - h. In combination with bendamustine and dexamethasone for patients with late relapse or progressive disease who have failed at least three prior therapies; **Prior authorization may be required.*
- 7. Request meets one of the following (a, b, c, d, or e):*
 - a. Monotherapy: dose does not exceed 56 mg/m² twice weekly each 28-day cycle;
 - b. With dexamethasone and lenalidomide: dose does not exceed 27 mg/m² twice weekly 3 out of 4 weeks for twelve 28-day cycles, then 27 mg/m² twice weekly 2 out of 4 weeks for the next six 28-day cycles for up to a total of 18 cycles;
 - c. With dexamethasone \pm Darzalex: dose does not exceed (i or ii):
 - i. 70 mg/m² once weekly each 28-day cycle;
 - ii. 56 mg/m² twice weekly each 28-day cycle:
 - d. With dexamethasone and Sarclisa: 56 mg/m² twice weekly each 28-day cycle;
 - e. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

*Prescribed regimen must be FDA-approved or recommended by NCCN.

Approval duration: 6 months

B. Waldenstrom's Macroglobulinemia (Lymphoplasmacytic Lymphoma) (off-label) (must meet all):

- 1. Diagnosis of Waldenstrom's macroglobulinemia (i.e., lymphoplasmacytic lymphoma) (WM/LPL);
- 2. Prescribed by or in consultation with an oncologist;
- 3. Age \geq 18 years;
- 4. Prescribed as a component of CaRD (carfilzomib, rituximab*, and dexamethasone) regimen as primary or Kyprolis-relapsed therapy; **Prior authorization may be required.*
- 5. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).*

*Prescribed regimen must be FDA-approved or recommended by NCCN.

Approval duration: 6 months

C. Systemic Light Chain Amyloidosis (off-label) (must meet all):

- 1. Diagnosis of Systemic Light Chain Amyloidosis;
- 2. Prescribed by or in consultation with an oncologist;
- 3. Age \geq 18 years;
- 4. Request is for relapsed/refractory non-cardiac disease;
- 5. Prescribed in one of the following ways (a or b):
 - a. As a single agent;
 - b. In combination with dexamethasone;
- 6. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).*

 *Prescribed regimen must be FDA-approved or recommended by NCCN.

Approval duration: 6 months

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

- 1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to LA.PMN.255
- 2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: LA.PMN.53 for Medicaid.

II. Continued Therapy

A. Multiple Myeloma (must meet all):

- 1. Currently receiving medication via Louisiana Healthcare Connections benefit, or documentation supports that member is currently receiving Kyprolis for a covered indication and has received this medication for at least 30 days;
- 2. Member is responding positively to therapy;
- 3. If request is for a dose increase, request meets one of the following (a, b, c, d, or e):*
 - a. Monotherapy: new dose does not exceed 56 mg/m² twice weekly each 28-day cycle;
 - b. With dexamethasone and lenalidomide: new dose does not exceed 27 mg/m² twice weekly 3 out of 4 weeks for twelve 28-day cycles, then 27 mg/m² twice weekly 2 out of 4 weeks for the next six 28-day cycles for up to a total of 18 cycles;
 - c. With dexamethasone ± Darzalex: new does not exceed (i or ii):
 - i. 70 mg/m² once weekly each 28-day cycle;
 - ii. 56 mg/m² twice weekly each 28-day cycle;
 - d. With dexamethasone and Sarclisa: 56 mg/m² twice weekly each 28-day cycle;
 - e. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (prescriber must submit supporting evidence). *Prescribed regimen must be FDA-approved or recommended by NCCN.

Approval duration: 12 months

B. Waldenstrom's Macroglobulinemia (Lymphoplasmacytic Lymphoma) (off-label) (must meet all):

- 1. Currently receiving medication via Louisiana Healthcare Connections benefit, or documentation supports that member is currently receiving Kyprolis for a covered indication and has received this medication for at least 30 days;
- 2. Member is responding positively to therapy;
- 3. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (prescriber must submit supporting evidence).*

 *Prescribed regimen must be FDA-approved or recommended by NCCN.

Approval duration: 12 months

C. Systemic Light Chain Amyloidosis (off-label) (must meet all):

- 1. Currently receiving medication via Louisiana Healthcare Connections benefit, or documentation supports that member is currently receiving Kyprolis for a covered indication and has received this medication for at least 30 days;
- 2. Member is responding positively to therapy;
- 3. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (prescriber must submit supporting evidence).*

 *Prescribed regimen must be FDA-approved or recommended by NCCN.

Approval duration: 12 months

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

- 1. If this drug has recently (within the last 6 months) undergone a label change (e.g., newly approved indication, age expansion, new dosing regimen) that is not yet reflected in this policy, refer to LA.PMN.255
- 2. If the requested use (e.g., diagnosis, age, dosing regimen) is NOT specifically listed under section III (Diagnoses/Indications for which coverage is NOT authorized) AND criterion 1 above does not apply, refer to the off-label use policy for the relevant line of business: LA.PMN.53 for Medicaid.

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 policy – LA.PMN.53 for Medicaid or evidence of coverage documents.

IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key
CaRD: carfilzomib, rituximab,
dexamethasone

FDA: Food and Drug Administration

MM: multiple myeloma

NCCN: National Comprehensive Cancer Network WM/LPL: Waldenstrom's macroglobulinemia/lymphoplasmacytic lymphoma

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
Kyprolis (carfilzomib), bortezomib (Velcade®), lenalidomide (Revlimid), cyclophosphamide, dexamethasone	 MM: Examples of primary therapy Bortezomib/dexamethasone Bortezomib/lenalidomide/dexamethasone Bortezomib/cyclophosphamide/dexamethasone Bortezomib/doxorubicin/dexamethasone Bortezomib/thalidomide/dexamethasone Carfilzomib/cyclophosphamide/dexamethasone Carfilzomib/lenalidomide/dexamethasone Cyclophosphamide/lenalidomide/dexamethasone Daratumumab/lenalidomide/dexamethasone Daratumumab/lenalidomide/bortezomib/dexamethasone Daratumumab/carfilzomib/lenalidomide/dexamethasone Daratumumab/cyclophosphamide/bortezomib/dexamethasone Daratumumab/bortezomib/thalidomide/dexamethasone Daratumumab/bortezomib/melphalan/prednisone Dexamethasone/thalidomide/cisplatin/doxorubicin/cyclophosphamide/etoposide/bortezomib (VTD-PACE) Ixazomib/cyclophosphamide/dexamethasone Ixazomib/lenalidomide/dexamethasone Lenalidomide/low-dose dexamethasone 	Varies
Kyprolis (carfilzomib), bortezomib (Velcade), lenalidomide (Revlimid), Darzalex® (daratumumab), Ninlaro® (ixazomib), Pomalyst (pomalidomide), Empliciti® (elotuzumab), Thalomid® (thalidomide),	MM: Examples of therapy for previously treated for relapsed or refractory disease: Bendamustine Bendamustine/bortezomib/dexamethasone Bendamustine/lenalidomide/dexamethasone Bendamustine/carfilzomib/dexamethasone Bortezomib/dexamethasone Bortezomib/lenalidomide/dexamethasone Bortezomib/liposomal doxorubicin/dexamethasone Bortezomib/cyclophosphamide/dexamethasone Carfilzomib/cyclophosphamide/dexamethasone Carfilzomib/lenalidomide/dexamethasone Carfilzomib/lenalidomide/dexamethasone Carfilzomib/cyclophosphamide/dexamethasone Carfilzomib/cyclophosphamide/dexamethasone	Varies

Drug Name	Dosing Regimen	Dose
Drugrame		Limit/
		Maximum
		Dose
bendamustine, cyclophosphamide,	Carfilzomib/cyclophosphamide/thalidomide/ dexamethasone	
dexamethasone,	Cyclophosphamide/lenalidomide/dexamethasone	
Sarclisa®	• • •	
(istatuximab-irfc),	CyclophosphamideDaratumumab	
Xpovio [®]	TD 4 1/1 41	
(selinexor)		
	Daratumumab/carfilzomib/dexamethasone Daratumumab/carfilzomib/adamethasone	
	Daratumumab/cyclophosphamide/bortezomib/ dexamethasone	
	Daratumumab/lenalidomide/dexamethasone	
	Daratumumab/pomalidomide/dexamethasone Dayamathasana/ayalanhasanhamida/atanasida/aisalatin	
	Dexamethasone/cyclophosphamide/etoposide/cisplatin Devamenth as a payth alidamida/cisplatin/dayamhicin/	
	Dexamethasone/thalidomide/cisplatin/doxorubicin/ avalophosphamida/etoposide/	
	cyclophosphamide/etoposide/ +/- bortezomibElotuzumab/lenalidomide/dexamethasone	
	Elotuzumab/bortezomib/dexamethasone	
	 Elotuzumab/pomalidomide/dexamethasone Istatuximab-irfc/carfilzomib/dexamethasone 	
	Ixazomib/cyclophosphamide/dexamethasoneIxazomib/lenalidomide/dexamethasone	
	Ixazomib/pomalidomide/desamethasone Isatuvimoh irfo/pomalidomide/dayamethasone	
	 Isatuximab-irfc/pomalidomide/dexamethasone Lenalidomide/dexamethasone 	
	Pomalidomide/bortezomib/dexamethasone	
	Pomalidomide/carfilzomib/dexamethasone	
	Pomalidomide/cyclophosphamide/dexamethasone	
	Pomalidomide/dexamethasone	
	Selinexor/bortezomib/dexamethasone	
	Selinexor/carfilzomib/dexamethasone Selinexor/carfilzomib/dexamethasone	
	Selinexor/daratumumab/dexamethasone	
	Selinexor/opomalidomide/dexamthasone	
	Venetoclax/dexamethasone	
	Ideocabtagene vicleucel	
	Ciltacabtagene autoleucel	
	Teclistamab-cqyv	
	Benlantamab mafodotin-blmf	
rituximab	WM/LPL: CaRD (carfilzomib, rituximab, and	Varies
(Rituxan [®]),	dexamethasone)	
Kyprolis	,	
(carfilzomib)		

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
dexamethasone		

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/Black Box Warnings None reported

V. I

Dosage and Administration			
Indication	Dosing Regimen	Maximum Dose	
MM	 Kyprolis + Dexamethasone: Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). Cycle 1: administer Kyprolis 20 mg/m² on Day 1 and 70 mg/m² on Days 8 and 15 Cycle 2 and later: 70 mg/m² on Day 1, 8, and 15 Dose (once weekly 20/70 mg/m² regimen): Starting dose of Kyprolis 20 mg/m² on Cycle 1, Day 1 If tolerated, escalate Kyprolis to 70 mg/m² on Day 8 of Cycle 1. Dexamethasone: 40 mg PO or IV on Days 1, 8, 15 of all 28-day cycles and on Day 22 of Cycles 1-9. Kyprolis + Dexamethasone, OR Monotherapy: 	70 mg/m ²	
	 Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). Cycle 1: administer Kyprolis 20 mg/m² on Days 1 and 2, and 56 mg/m² on Day 8, 9, 15, and 16 Cycle 2 and later: administer Kyprolis 56 mg/m² on Days 1, 2, 8, 9, 15 and 16 For monotherapy: Cycle 13 and later: administer Kyprolis 56 mg/m² on Days 1, 2, 15 and 16 Dose (twice weekly 20/56 mg/m² regimen): Starting dose of Kyprolis 20 mg/m² on Cycle 1, Days 1 and 2 If tolerated, escalate Kyprolis to 56 mg/m² on Day 8 of Cycle 1. Do not include if Monotherapy: Dexamethasone: 20 mg PO or IV on Days 1, 2, 8, 9, 15, 16, 22 and 23 of each 28-day cycle. 		

Indication	Dosing Regimen	Maximum
		Dose
	 Kyprolis + lenalidomide + Dexamethasone, OR Monotherapy: Cycles: Kyprolis IV as a 10-minute infusion for 28-day cycles. ○ Cycle 1: administer Kyprolis 20 mg/m² on Days 1 and 2, and 27 mg/m² on Days 8, 9, 15 and 16 ○ Cycle 2 to 12: administer Kyprolis 27 mg/m² on Days 1, 2, 8, 9, 15 and 16 ○ Cycle 13 and later, administer Kyprolis 27mg/m² on Day 1, 2, 15 and 16 ○ Discontinue Kyprolis after Cycle 18 and continue lenalidomide and dexamethasone thereafter. Dose (twice weekly 20/27 mg/m² regimen): ○ Starting dose of Kyprolis: 20 mg/m² on Cycle 1, Days 1 and 2 ○ If tolerated, escalate Kyprolis to 27 mg/m² on Day 8 of Cycle 1. Do not include if Monotherapy: ○ Lenalidomide: 25 mg PO QD on Days 1–21 of each cycle. ○ Dexamethasone: 40 mg PO or IV on Days 1, 8, 15, and 	Dose
	 Z2 of each 28-day cycle. Kyprolis + Darzalex + Dexamethasone: Twice weekly 20/56 mg/m² regimen: Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). Cycle 1: administer Kyprolis 20 mg/m² on Days 1 and 2 and 56 mg/m² on Days 8, 9, 15 and 16 Cycle 2 and later: administer Kyprolis 56 mg/m² on Days 1, 2, 8, 9, 15 and 16 Dose: Starting dose of Kyprolis: 20 mg/m² on Cycle 1, Days 1 and 2 If tolerated, escalate Kyprolis to 56 mg/m² on Day 8 of Cycle 1 See prescribing information for Darzalex, Darzalex Faspro, and dexamethasone dosing. Once weekly 20/70 mg/m² regimen: Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). Cycle 1: administer Kyprolis 20 mg/m² on Day 1 and 70 mg/m² on Days 8 and 15 	

Indication	Dosing Regimen	Maximum Dose
	 Cycle 2 and later: administer Kyprolis 70 mg/m² on Days 1, 8 and 15 Dose: Starting dose of Kyprolis: 20 mg/m² on Cycle 1, Days 1 and 2 If tolerated, escalate Kyprolis to 70 mg/m² on Day 8 of Cycle 1 See prescribing information for Darzalex, Darzalex Faspro, and dexamethasone dosing. 	
	 Kyprolis + Sarclisa + Dexamethasone: Twice weekly 20/56 mg/m² regimen: Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). Cycle 1: administer Kyprolis 20 mg/m² on Days 1 and 2 and 56 mg/m² on Days 8, 9, 15 and 16 Cycle 2 and later: administer Kyprolis 56 mg/m² on Days 1, 2, 8, 9, 15 and 16 	
	 Dose: Starting dose of Kyprolis: 20 mg/m² on Cycle 1, Days 1 and 2 If tolerated, escalate Kyprolis to 56 mg/m² on Day 8 of Cycle 1 See prescribing information for Sarclisa dosing. Calculate the Kyprolis dose using the patient's actual body surface area at baseline. In patients with a body surface area greater than 2.2 m², calculate the dose based upon a body surface area of 2.2 m². 	

VI. Product Availability

Single-dose vial: 10 mg, 30 mg, 60 mg

VII. References

- 1. Kyprolis Prescribing Information. Thousand Oaks: Onyx Pharmaceuticals, Inc.; June 2022. Available at: https://www.pi.amgen.com/-/media/Project/Amgen/Repository/pi-amgencom/Kyprolis/kyprolis_pi.pdf. Accessed August 6, 2023.
- 2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at: http://www.nccn.org/professionals/drug_compendium. Accessed August 6, 2023.
- 3. National Comprehensive Cancer Network. Multiple Myeloma Version 03.2023 Available at: https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf. Accessed August 6, 2023.
- 4. National Comprehensive Cancer Network. Waldenstrom's macroglobulinemia-lymphoplasmacytic lymphoma Version 01.2023. Available at:

- https://www.nccn.org/professionals/physician_gls/pdf/waldenstroms.pdf. Accessed August 6, 2023.
- 5. National Comprehensive Cancer Network. Systemic Light Chain Amyloidosis Version 2.2023. Available at: https://www.nccn.org/professionals/physician_gls/pdf/amyloidosis.pdf. Accessed August 6, 2023.

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	Description
Codes	
J9047	Injection, carfilzomib, 1 mg

Reviews, Revisions, and Approvals	Date	LDH
		Approval Date
Converted corporate to local policy.	06.15.23	01.03.24
Annual review: updated MM initial approval criteria to include "for	05.07.24	
maintenance therapy, Kyprolis is prescribed in combination with		
lenalidomide" and "in combination with bendamustine and		
dexamethasone for patients with late relapse or progressive disease		
who have failed at least three prior therapies" to align with current		
NCCN compendium and MM guidelines; for Appendix B, updated		
section with current MM primary therapies and previously treated for		
relapsed or refractory therapies per current MM guidelines version		
3.2023 and removed Panobinostat regimens as agent was withdrawn		
from market; references reviewed and updated.		

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy,

contract of insurance, etc.), as well as to state and federal requirements and applicable LHCC administrative policies and procedures.

This clinical policy is effective as of the date determined by LHCC. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. LHCC retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

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