

Clinical Policy: Carfilzomib (Kyprolis)

Reference Number: PA.CP.PHAR.309

Effective Date: 10.17.18

Last Review Date: 10/2021

[Coding Implications](#)

[Revision Log](#)

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:
 - Lenalidomide and dexamethasone or
 - Dexamethasone or
 - Daratumumab 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 health plans affiliated with PA Health & Wellness® 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 or hematologist;
3. Age ≥ 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 Revlimid® (lenalidomide)
 - b. In combination with dexamethasone and cyclophosphamide;
 - c. In combination with daratumumab, lenalidomide, and dexamethasone for symptomatic multiple myeloma for transplant candidates (useful in certain circumstances, generally reserved for the treatment of aggressive multiple myeloma)
5. For previously treated multiple myeloma for relapsed or refractory disease, Kyprolis is prescribed in one of the following ways (a, b, or c):*
 - a. In combination with dexamethasone or with Revlimid® (lenalidomide) plus dexamethasone in patients who have received one to 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) and dexamethasone in patients who have received one to three lines of therapy;

**Prior authorization may be required..*

6. Request meets one of the following (a, b, c, or d):
 - a. Monotherapy: dose does not exceed 56 mg/m² twice weekly each 28-day cycle;
 - b. With dexamethasone and Revlimid: 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: 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. Dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

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 or hematologist;
3. Age ≥ 18 years;
4. Prescribed as a component of CaRD (carfilzomib, Rituxan® [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*).

Approval duration: 6 months

C. 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. Multiple Myeloma (must meet all):

1. Currently receiving medication via Pennsylvania Health and 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. If request is for a dose increase, request meets one of the following (a, b, c, or d):
 - a. Monotherapy: new dose does not exceed 56 mg/m² twice weekly each 28-day cycle;
 - b. With Revlimid plus dexamethasone: 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. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (*prescriber must submit supporting evidence*).

Approval duration: 12 months

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

1. Currently receiving medication via Pennsylvania Health and 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. New dose is supported by practice guidelines or peer-reviewed literature for the relevant off-label use (prescriber must submit supporting evidence).

Approval duration: 12 months

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

1. Currently receiving medication via Pennsylvania Health and 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 (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 policy – PA.CP.PMN.53 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), Velcade® (bortezomib),	<u>MM: Examples of primary therapy</u> <ul style="list-style-type: none"> • Bortezomib/lenalidomide/dexamethasone • Bortezomib/cyclophosphamide/dexamethasone • Carfilzomib/lenalidomide/dexamethasone 	Varies

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
Revlimid (lenalidomide), cyclophosphamide, dexamethasone	<ul style="list-style-type: none"> • Daratumumab/lenalidomide/dexamethasone • Daratumumab/lenalidomide/bortezomib/dexamethasone • Carfilzomib/cyclophosphamide/dexamethasone • Carfilzomib/lenalidomide/dexamethasone 	
Kyprolis (carfilzomib), Velcade® (bortezomib), Revlimid (lenalidomide), Darzalex® (daratumumab), Ninlaro® (ixazomib), Pomalyst (pomalidomide), Empliciti® (elotuzumab), Farydak (panobinostat), Thalomid® (thalidomide), bendamustine, cyclophosphamide, dexamethasone	<u>MM: Examples of therapy for previously treated for relapsed or refractory disease:</u> <ul style="list-style-type: none"> • Bendamustine • Bortezomib/dexamethasone • Carfilzomib/lenalidomide/dexamethasone • Daratumumab/bortezomib/dexamethasone • Daratumumab/carfilzomib/dexamethasone • Daratumumab/lenalidomide/dexamethasone • Ixazomib/lenalidomide/dexamethasone • Pomalidomide/bortezomib/dexamethasone • Elotuzumab/lenalidomide/dexamethasone • Panobinostat/bortezomib/dexamethasone • Carfilzomib/cyclophosphamide/dexamethasone • Carfilzomib/dexamethasone • Pomalidomide/carfilzomib/dexamethasone • Carfilzomib/cyclophosphamide/thalidomide/dexamethasone • Panobinostat/carfilzomib 	Varies
Rituxan (rituximab) Kyprolis (carfilzomib) dexamethasone	<u>WM/LPL: CaRD</u> (carfilzomib, rituximab, and dexamethasone)	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/Black Box Warnings
None reported

V. Dosage and Administration

Indication	Dosing Regimen	Maximum Dose
MM	<p><u>Kyprolis + Dexamethasone:</u></p> <ul style="list-style-type: none"> • Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). <ul style="list-style-type: none"> ○ 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): <ul style="list-style-type: none"> ○ 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. <p><u>Kyprolis + Dexamethasone, OR Monotherapy:</u></p> <ul style="list-style-type: none"> • Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). <ul style="list-style-type: none"> ○ 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): <ul style="list-style-type: none"> ○ 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. <p><u>Do not include if Monotherapy:</u></p> <ul style="list-style-type: none"> ○ Dexamethasone: 20 mg PO or IV on Days 1, 2, 8, 9, 15, 16, 22 and 23 of each 28-day cycle. <p><u>Kyprolis + Revlimid + Dexamethasone, OR Monotherapy:</u></p> <ul style="list-style-type: none"> • Cycles: Kyprolis IV as a 10-minute infusion for 28-day cycles. <ul style="list-style-type: none"> ○ 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 Revlimid and dexamethasone thereafter. • Dose (twice weekly 20/27 mg/m² regimen): 	70 mg/m ²

Indication	Dosing Regimen	Maximum Dose
	<ul style="list-style-type: none"> 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. <p><u>Do not include if Monotherapy:</u></p> <ul style="list-style-type: none"> Revlimid: 25 mg PO QD on Days 1–21 of each cycle. Dexamethasone: 40 mg PO or IV on Days 1, 8, 15, and 22 of each 28-day cycle. <p><u>Kyprolis + Darzalex + Dexamethasone:</u> Twice weekly 20/56 mg/m² regimen:</p> <ul style="list-style-type: none"> Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 and dexamethasone dosing. <p>Once weekly 20/70 mg/m² regimen:</p> <ul style="list-style-type: none"> Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). <ul style="list-style-type: none"> Cycle 1: administer Kyprolis 20 mg/m² on Day 1 and 70 mg/m² on Days 8 and 15 Cycle 2 and later: administer Kyprolis 70 mg/m² on Days 1, 8 and 15 Dose: <ul style="list-style-type: none"> 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 and dexamethasone dosing. <p><i>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.</i></p>	

VI. Product Availability

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

VII. References

1. Kyprolis Prescribing Information. Thousand Oaks: Onyx Pharmaceuticals, Inc.; March 2021. Available at: <http://www.kyprolis.com>. Accessed August 6, 2021.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at: http://www.nccn.org/professionals/drug_compendium. Accessed August 6, 2021.
3. National Comprehensive Cancer Network. Multiple Myeloma Version 07.2021. Available at: https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf. Accessed August 6, 2021.
4. National Comprehensive Cancer Network. Waldenstrom's macroglobulinemia-lymphoplasmacytic lymphoma Version 01.2022. Available at: https://www.nccn.org/professionals/physician_gls/pdf/waldenstroms.pdf. Accessed August 6, 2021.

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.

HCPSC Codes	Description
J9047	Injection, carfilzomib, 1 mg

Reviews, Revisions, and Approvals	Date	P&T Approval Date
New Policy Created	10/18	
4Q 2019 annual review: No changes per Statewide PDL implementation 01-01-2020	10/30/19	
4Q 2020 annual review: Kyprolis dosing as monotherapy and in combination with dexamethasone added per PI; MM - FDA approved regimen added: in combination with Darzalex and dexamethasone, and NCCN recommended regimen added: in combination with dexamethasone and cyclophosphamide ± Thalomid; references reviewed and updated.	10/2020	
4Q 2021 annual review: added primary therapy and revised therapy for previous treated for relapsed or refractory disease and updated Appendix B Therapeutic Alternatives as per NCCN recommendation; updated Section V Dosage and Administration and Section VI Product Availability; references reviewed and updated.	10/2021	