Clinical Policy: Carfilzomib (Kyprolis)

Reference Number: CP.PHAR.309
Effective Date: 02.01.17
Last Review Date: 11.22
Line of Business: Commercial, HIM, Medicaid

Coding Implications
Revision Log

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

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 or
  - Daratumumab and hyaluronidase-fihj and dexamethasone or
  - 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 health plans affiliated with Centene Corporation® 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 ≥ 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);
5. For previously treated multiple myeloma for relapsed or refractory disease, Kyprolis is prescribed in one of the following ways (a - g):*
   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;

**Prior authorization may be required.*

6. Request meets one of the following (a, b, c, d, or e):*
   a. Monotherapy: dose does not exceed 56 mg/m^2 twice weekly each 28-day cycle;
   b. With dexamethasone and lenalidomide: dose does not exceed 27 mg/m^2 twice weekly 3 out of 4 weeks for twelve 28-day cycles, then 27 mg/m^2 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/m^2 once weekly each 28-day cycle;
      ii. 56 mg/m^2 twice weekly each 28-day cycle;
   d. With dexamethasone and Sarclisa: 56 mg/m^2 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 ≥ 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 ≥ 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 one of the following policies (a or b):
   a. For drugs on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.33 for health insurance marketplace, and CP.PMN.255 for Medicaid; or
   b. For drugs NOT on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.103 for health insurance marketplace, and CP.PMN.16 for Medicaid; or
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: CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.PMN.53 for Medicaid.

II. Continued Therapy

A. Multiple Myeloma (must meet all)**:**

1. Currently receiving medication via Centene 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/m^2 twice weekly each 28-day cycle;
   b. With dexamethasone and lenalidomide: new dose does not exceed 27 mg/m^2 twice weekly 3 out of 4 weeks for twelve 28-day cycles, then 27 mg/m^2 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/m^2 once weekly each 28-day cycle;
      ii. 56 mg/m^2 twice weekly each 28-day cycle;
   d. With dexamethasone and Sarclisa: 56 mg/m^2 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 Centene 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 Centene 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 one of the following policies (a or b):
   a. For drugs on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the no coverage criteria policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.33 for health insurance marketplace, and CP.PMN.255 for Medicaid; or
   b. For drugs NOT on the formulary (commercial, health insurance marketplace) or PDL (Medicaid), the non-formulary policy for the relevant line of business: CP.CPA.190 for commercial, HIM.PA.103 for health insurance marketplace, and CP.PMN.16 for Medicaid; or
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: CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace, and CP.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 policies – CP.CPA.09 for commercial, HIM.PA.154 for health insurance marketplace and CP.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/lenalidomide/dexamethasone • Bortezomib/cyclophosphamide/dexamethasone • Carfilzomib/lenalidomide/dexamethasone • Daratumumab/lenalidomide/dexamethasone • Daratumumab/lenalidomide/bortezomib/dexamethasone • Carfilzomib/cyclophosphamide/dexamethasone • Carfilzomib/lenalidomide/dexamethasone	Varies
Kyprolis (carfilzomib), bortezomib (Velcade), lenalidomide (Revlimid), Darzalex® (daratumumab), Ninlaro® (ixazomib), Pomalyst (pomalidomide), Empliciti® (elotuzumab), Farydak (panobinostat), Thalomid® (thalidomide), bendamustine, cyclophosphamide, dexamethasone	MM: Examples of therapy for previously treated for relapsed or refractory disease: • 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	Varies

Drug Name	Dosing Regimen	Dose Limit/ Maximum Dose
rituximab (Rituxan®), Kyprolis (carfilzomib) dexamethasone	WM/LPL: CaRD (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	Kyprolis + Dexamethasone:
	• Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles).
	  ○ Cycle 1: administer Kyprolis 20 mg/m^2 on Day 1 and 70 mg/m^2 on Days 8 and 15
	  ○ Cycle 2 and later: 70 mg/m^2 on Day 1, 8, and 15
	• Dose (once weekly 20/70 mg/m^2 regimen):
	  ○ Starting dose of Kyprolis 20 mg/m^2 on Cycle 1, Day 1
	  ○ If tolerated, escalate Kyprolis to 70 mg/m^2 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**:
	• Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles).
	  ○ Cycle 1: administer Kyprolis 20 mg/m^2 on Days 1 and 2, and 56 mg/m^2 on Day 8, 9, 15, and 16
	  ○ Cycle 2 and later: administer Kyprolis 56 mg/m^2 on Days 1, 2, 8, 9, 15 and 16
	  ○ For monotherapy: Cycle 13 and later: administer Kyprolis 56 mg/m^2 on Days 1, 2, 15 and 16
	• Dose (twice weekly 20/56 mg/m^2 regimen):
	  ○ Starting dose of Kyprolis 20 mg/m^2 on Cycle 1, Days 1 and 2
	  ○ If tolerated, escalate Kyprolis to 56 mg/m^2 on Day 8 of Cycle 1.
	Do not include if Monotherapy:
		70 mg/m^2

Indication	Dosing Regimen	Maximum Dose
	○ Dexamethasone: 20 mg PO or IV on Days 1, 2, 8, 9, 15, 16, 22 and 23 of each 28-day cycle. <u>Kyprolis + lenalidomide + Dexamethasone, OR **Monotherapy**</u>: • Cycles: Kyprolis IV as a 10-minute infusion for 28-day cycles. ○ Cycle 1: administer Kyprolis 20 mg/m^2 on Days 1 and 2, and 27 mg/m^2 on Days 8, 9, 15 and 16 ○ Cycle 2 to 12: administer Kyprolis 27 mg/m^2 on Days 1, 2, 8, 9, 15 and 16 ○ Cycle 13 and later, administer Kyprolis 27mg/m^2 on Day 1, 2, 15 and 16 ○ Discontinue Kyprolis after Cycle 18 and continue lenalidomide and dexamethasone thereafter. • Dose (twice weekly 20/27 mg/m^2 regimen): ○ Starting dose of Kyprolis: 20 mg/m^2 on Cycle 1, Days 1 and 2 ○ If tolerated, escalate Kyprolis to 27 mg/m^2 on Day 8 of Cycle 1. *<u>Do not include if Monotherapy:</u>* ○ Lenalidomide: 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. <u>Kyprolis + Darzalex + Dexamethasone:</u> Twice weekly 20/56 mg/m^2 regimen: • Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). ○ Cycle 1: administer Kyprolis 20 mg/m^2 on Days 1 and 2 and 56 mg/m^2 on Days 8, 9, 15 and 16 ○ Cycle 2 and later: administer Kyprolis 56 mg/m^2 on Days 1, 2, 8, 9, 15 and 16 • Dose: ○ Starting dose of Kyprolis: 20 mg/m^2 on Cycle 1, Days 1 and 2 ○ If tolerated, escalate Kyprolis to 56 mg/m^2 on Day 8 of Cycle 1 ○ See prescribing information for Darzalex, Darzalex Faspro, and dexamethasone dosing. Once weekly 20/70 mg/m^2 regimen: • Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles).	

Indication	Dosing Regimen	Maximum Dose
	○ Cycle 1: administer Kyprolis 20 mg/m^2 on Day 1 and 70 mg/m^2 on Days 8 and 15 ○ Cycle 2 and later: administer Kyprolis 70 mg/m^2 on Days 1, 8 and 15 • Dose: ○ Starting dose of Kyprolis: 20 mg/m^2 on Cycle 1, Days 1 and 2 ○ If tolerated, escalate Kyprolis to 70 mg/m^2 on Day 8 of Cycle 1 ○ See prescribing information for Darzalex, Darzalex Faspro, and dexamethasone dosing. <u>Kyprolis + Sarclisa + Dexamethasone:</u> Twice weekly 20/56 mg/m^2 regimen: • Cycles: Kyprolis IV as a 30-minute infusion (28-day cycles). ○ Cycle 1: administer Kyprolis 20 mg/m^2 on Days 1 and 2 and 56 mg/m^2 on Days 8, 9, 15 and 16 ○ Cycle 2 and later: administer Kyprolis 56 mg/m^2 on Days 1, 2, 8, 9, 15 and 16 • Dose: ○ Starting dose of Kyprolis: 20 mg/m^2 on Cycle 1, Days 1 and 2 ○ If tolerated, escalate Kyprolis to 56 mg/m^2 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 m^2, calculate the dose based upon a body surface area of 2.2 m^2.*	

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: http://www.kyprolis.com. Accessed July 12, 2022.
2. National Comprehensive Cancer Network Drugs and Biologics Compendium. Available at: http://www.nccn.org/professionals/drug_compendium. Accessed July 12, 2022.
3. National Comprehensive Cancer Network. Multiple Myeloma Version 05.2022. Available at: https://www.nccn.org/professionals/physician_gls/pdf/myeloma.pdf. Accessed July 12, 2022.

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 July 12, 2022.
5. National Comprehensive Cancer Network. Systemic Light Chain Amyloidosis Version 1.2022. Available at: https://www.nccn.org/professionals/physician_gls/pdf/amyloidosis.pdf. Accessed July 12, 2022.

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
J9047	Injection, carfilzomib, 1 mg

Reviews, Revisions, and Approvals	Date	P&T Approval Date
4Q 2018 annual review: HIM-Medical added; NCCN and FDA-approved uses summarized for improved clarity; specialist involvement in care and continuation of care added; MM prior therapy regimens consolidated into primary or subsequent therapy; dexamethasone and cyclophosphamide added as an MM regimen; references reviewed and updated.	08.07.18	11.18
Commercial line of business added.	10.15.19	
4Q 2019 annual review: HIM line of business added; Kyprolis dosing as monotherapy and in combination with dexamethasone added per PI; references reviewed and updated.	08.20.19	11.19
4Q 2020 annual review: 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.	09.02.20	11.20
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; modified reference from HIM.PHAR.21 to HIM.PA.154; references reviewed and updated.	08.06.21	11.21
4Q 2022 annual review: RT4 – added new indication in combination with Sarclisa plus dexamethasone and Darzalex Faspro plus dexamethasone for MM after one to three lines of therapy; per NCCN Compendium added additional MM uses as primary therapy in combination with dexamethasone, lenalidomide, and Darzalex,	07.12.22	11.22

Reviews, Revisions, and Approvals	Date	P&T Approval Date
added previously treated MM combination regimens, added criteria set for systemic light chain amyloidosis; references reviewed and updated. Template changes applied to other diagnoses/indications.		

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. The Health Plan 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. "Health Plan" means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

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 Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. 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. The Health Plan 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.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

Note:
For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.