Clinical Policy: Ramucirumab (Cyramza)
Reference Number: CP. PHAR.119
Effective Date: 06.01.15
Last Review Date: 02.21
Line of Business: Commercial, HIM, Medicaid

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

Description
Ramucirumab (Cyramza®) is an anti-vascular endothelial growth factor (VEGF) antibody.

FDA Approved Indication(s)
Cyramza is indicated:
• As a single agent or in combination with paclitaxel, for treatment of advanced gastric or gastro-esophageal junction (i.e., esophagogastric junction; EGJ) adenocarcinoma, with disease progression on or after prior fluoropyrimidine- or platinum-containing chemotherapy.
• In combination with erlotinib, for treatment of metastatic non-small cell lung cancer (NSCLC) with epidermal growth factor receptor (EGFR) exon 19 deletions or exon 21 (L858R) mutations.
• In combination with docetaxel, for treatment of metastatic NSCLC with disease progression on or after platinum-based chemotherapy. Patients with EGFR or ALK genomic tumor aberrations should have disease progression on FDA-approved therapy for these aberrations prior to receiving Cyramza.
• In combination with FOLFIRI (irinotecan, folinic acid, and 5-fluorouracil), for the treatment of metastatic colorectal cancer (CRC) with disease progression on or after prior therapy with bevacizumab, oxaliplatin, and a fluoropyrimidine.
• As a single agent, for the treatment of hepatocellular carcinoma (HCC) in patients who have an alpha fetoprotein (AFP) of ≥ 400 ng/mL and have been treated with sorafenib.

Policy/Criteria
Provider must submit documentation (including 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 Cyramza is medically necessary when the following criteria are met:

I. Initial Approval Criteria
A. Esophageal, Esophagogastric Junction, and Gastric Cancer (must meet all):
   1. Diagnosis of advanced esophageal, EGJ or gastric cancer;
   2. Prescribed by or in consultation with an oncologist;
   3. Age ≥ 18 years;
   4. Prescribed as subsequent therapy in one of the following ways (a, b, or c)*:
      a. As a single agent;
      b. In combination with paclitaxel;
      c. In combination with fluorouracil and irinotecan;
**Prior authorization may be required for paclitaxel, fluorouracil or irinotecan.**

5. Request meets one of the following (a or b):
   a. Dose does not exceed 8 mg per kg every 2 weeks;
   b. 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. **Non-Small Cell Lung Cancer** (must meet all):
   1. Diagnosis of metastatic, recurrent, or advanced NSCLC;
   2. Prescribed by or in consultation with an oncologist;
   3. Age ≥ 18 years;
   4. Request meets one of the following (a or b):
      a. Prescribed as subsequent therapy in combination with docetaxel;
      b. Prescribed in combination with erlotinib (Tarceva®);
         *Prior authorization may be required for docetaxel or erlotinib*
   5. If prescribed in combination with erlotinib, disease is positive for a sensitizing EGFR mutation (e.g., EGFR exon 19 deletions or exon 21 [L858R] substitution mutation);
   6. Request meets one of the following (a, b, or c):
      a. In combination with docetaxel: dose does not exceed 10 mg/kg on day 1 of a 21-day cycle;
      b. In combination with erlotinib: dose does not exceed 10 mg/kg on day 1 every 2 weeks;
      c. 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. **Colorectal Cancer** (must meet all):
   1. Diagnosis of advanced or metastatic CRC;
   2. Prescribed by or in consultation with an oncologist;
   3. Age ≥ 18 years;
   4. Prescribed in combination with irinotecan or FOLFIRI (irinotecan, folinic acid, and 5-fluorouracil),*
      *Prior authorization may be required for irinotecan or FOLFIRI.*
   5. Request meets one of the following (a or b):
      a. Dose does not exceed 8 mg/kg every 2 weeks;
      b. 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. **Hepatocellular Carcinoma** (must meet all):
   1. Diagnosis of progressive HCC;
   2. Prescribed by or in consultation with an oncologist;
   3. Age ≥ 18 years;
4. AFP ≥ 400 ng/mL;
5. Disease has progressed on or after therapy with Nexavar®;*  
   *Prior authorization may be required for Nexavar
6. Request meets one of the following (a or b):*  
   a. Dose does not exceed 8 mg/kg every 2 weeks;  
   b. 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

E. Other diagnoses/indications  
1. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT  
   specifically listed under section III (Diagnoses/Indications for which coverage is  
   NOT authorized): CP.CPA.09 for commercial, HIM.PA.154 for health insurance  
   marketplace, and CP.PMN.53 for Medicaid.

II. Continued Therapy  
A. All Indications in Section I (must meet all):  
   1. Currently receiving medication via Centene benefit, or documentation supports that  
      member is currently receiving Cyramza 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, or d)*:  
      a. Esophageal/EGJ/gastric cancer, CRC, HCC: new dose does not exceed 8 mg/kg  
         every 2 weeks;  
      b. NSCLC in combination with docetaxel: new dose does not exceed 10 mg/kg on  
         day 1 of a 21-day cycle;  
      c. NSCLC in combination with erlotnib: new dose does not exceed 10 mg/kg every  
         2 weeks;  
      d. 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. Other diagnoses/indications (must meet 1 or 2):  
   1. Currently receiving medication via Centene benefit and documentation supports  
      positive response to therapy.  
      Approval duration: Duration of request or 6 months (whichever is less); or  
   2. Refer to the off-label use policy for the relevant line of business if diagnosis is NOT  
      specifically listed under section III (Diagnoses/Indications for which coverage is  
      NOT authorized): 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 policy –
IV. Appendices/General Information

Appendix A: Abbreviation/Acronym Key

- AFP: alpha fetoprotein
- CRC: colorectal carcinoma
- EGJ: esophagogastric junction
- EGFR: epidermal growth factor receptor
- FDA: Food and Drug Administration
- HCC: hepatocellular carcinoma
- FOLFIRI: fluorouracil, leucovorin, irinotecan
- NCCN: National Comprehensive Cancer Network
- NSCLC: non-small cell lung cancer
- VEGF: vascular endothelial growth factor

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.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosing Regimen</th>
<th>Dose Limit/Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>paclitaxel</td>
<td>Esophageal, EGF, or gastric cancer: Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>docetaxel (Taxotere®)</td>
<td>NSCLC: Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>Erlotinib (Tarceva)</td>
<td>NSCLC: 150 mg PO QD</td>
<td>150 mg/day</td>
</tr>
<tr>
<td>irinotecan (Camptosar®)</td>
<td>CRC: Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>FOLFIRI (5-FU, leucovorin,</td>
<td>CRC: Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>irinotecan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nexavar (sorafeni^n)</td>
<td>HCC: 400 mg PO BID</td>
<td>800 mg/day</td>
</tr>
</tbody>
</table>

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

None reported

Appendix D: Hepatocellular Carcinoma

A Cyramza REACH and REACH-2 pivotal trial pooled analysis of 542 patients with disease progression on or after Nexavar and a baseline AFP level of ≥ 400 ng/mL showed that median overall survival was greater for patients who received Cyramza compared to patients who received placebo (8.1 vs 5.0 months, respectively; HR, 0.69; 95% CI, 0.57-0.84; P<0.001). For advanced HCC, Cyramza subsequent-line therapy post Nexavar therapy in cases where AFP is ≥ 400 ng/mL is consistent with both FDA-approved labeling and NCCN guideline recommendations.

V. Dosage and Administration

<table>
<thead>
<tr>
<th>Indication</th>
<th>Dosing Regimen</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastric or EGI adenocarcinoma</td>
<td>8 mg/kg IV every 2 weeks as a single agent or in combination with weekly paclitaxel</td>
<td>8 mg/kg</td>
</tr>
<tr>
<td>NSCLC</td>
<td>10 mg/kg IV on day 1 of a 21-day cycle prior to docetaxel 10 mg/kg IV every 2 weeks with daily erlotinib</td>
<td>10 mg/kg</td>
</tr>
<tr>
<td>CRC</td>
<td>8 mg/kg IV every 2 weeks prior to FOLFIRI</td>
<td>8 mg/kg</td>
</tr>
<tr>
<td>HCC</td>
<td>8 mg/kg IV every 2 weeks</td>
<td>8 mg/kg</td>
</tr>
</tbody>
</table>

VI. Product Availability
Single-dose vial: 100 mg/10 mL (10 mg/mL) solution, 500mg/50mL (10mg/mL) solution

VII. References

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.

<table>
<thead>
<tr>
<th>HCPCS Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J9308</td>
<td>Injection, ramucirumab, 5mg</td>
</tr>
</tbody>
</table>
### Reviews, Revisions, and Approvals

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
<th>P&amp;T Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esophageal cancer added to section A. Lung cancer notations of specific required prior therapy are removed. Colorectal cancer indications updated around FDA and NCCN uses. Safety criteria removed as there are no contraindications or black box warnings precluding treatment. Changed initial approval duration to 6 months. Changed continued approval to 12 months.</td>
<td>03.01.17</td>
<td>04.17</td>
</tr>
<tr>
<td>1Q18 annual review: - Age, dosing, specialist added. - NCCN recommendations removed for lung and colon cancer. - References reviewed and updated.</td>
<td>12.01.17</td>
<td>02.18</td>
</tr>
<tr>
<td>1Q 2019 annual review; HIM-Medical Benefit line of business added; NCCN and FDA-approved uses summarized for improved clarity - progression on specific therapies removed across indications; for CRC combination therapy with irinotecan is added; references reviewed and updated.</td>
<td>11.13.18</td>
<td>02.19</td>
</tr>
<tr>
<td>RT4: Criteria added for new FDA indication as a single-agent therapy for the treatment of advanced HCC; removed BBW based on updated prescribing information; references reviewed and updated.</td>
<td>07.05.19</td>
<td></td>
</tr>
<tr>
<td>1Q 2020 annual review: no significant changes; references reviewed and updated.</td>
<td>10.31.19</td>
<td>02.20</td>
</tr>
<tr>
<td>4Q 2020 annual review: modified HIM-Medical Benefit to HIM line of business; added new indication NSCLC with EGFR mutations; added criteria for NSCLC for use in combo with Erlotinib; added criteria for advanced esophageal, EGJ or gastric cancer allowing combination with fluorouracil and irinotecan per NCCN; added disease characteristics criteria for all indications per NCCN; updated Appendix B; references reviewed and updated.</td>
<td>08.14.20</td>
<td>08.20</td>
</tr>
<tr>
<td>1Q 2021 annual review: added commercial line of business; NSCLC - EGFR mutation requirement added if therapy in combination with erlotinib; CRC - subsequent therapy removed to accommodate NCCN uses; references reviewed and updated.</td>
<td>10.14.20</td>
<td>02.21</td>
</tr>
</tbody>
</table>

### 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.

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**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.

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CLINICAL POLICY
Ramucirumab

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