Clinical Policy: Bedaquiline (Sirturo)
Reference Number: CP.PMN.212
Effective Date: 09.04.18
Last Review Date: 11.19
Line of Business: HIM, Medicaid

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

Description
Bedaquiline (Sirturo®) is a diarylquinoline antimycobacterial drug.

FDA Approved Indication(s)
Sirturo is indicated as part of combination therapy in the treatment of adult and pediatric patients (12 to less than 18 years of age and weighing at least 30 kg) with pulmonary multi-drug resistant tuberculosis (MDR-TB). Reserve Sirturo for use when an effective treatment regimen cannot otherwise be provided.

Limitation(s) of use:
- Do not use Sirturo for the treatment of:
  - Latent infection due to *Mycobacterium tuberculosis*
  - Drug-sensitive tuberculosis
  - Extra-pulmonary tuberculosis
  - Infections caused by non-tuberculous mycobacteria
- The safety and efficacy of Sirturo in the treatment of HIV infected patients with MDR-TB have not been established as clinical data are limited.

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 Sirturo is medically necessary when the following criteria are met:

I. Initial Approval Criteria
   A. Multi-Drug Resistant Tuberculosis (must meet all):
      1. Diagnosis of MDR-TB;
      2. Prescribed by or in consultation with an infectious disease specialist or a pulmonologist;
      3. Age ≥ 12 years;
      4. Prescribed in combination with at least 3 other anti-tuberculosis agents (*see Appendix B*);
      5. Documented resistance to fluoroquinolones, unless contraindicated or clinically significant adverse effects are experienced;
      6. Dose does not exceed 400 mg per day for the first 2 weeks, followed by 200 mg three times per week.
CLINICAL POLICY
Bedaquiline

Approval duration: 24 weeks

B. 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): HIM.PHAR.21 for health insurance marketplace and CP.PMN.53 for Medicaid.

II. Continued Therapy
A. Multi-Drug Resistant Tuberculosis (must meet all):
1. Currently receiving medication via Centene benefit or member has previously met initial approval criteria;
2. Member is responding positively to therapy;
3. If request is for a dose increase, new dose does not exceed 200 mg three times per week.

Approval duration: up to a total duration of 24 weeks

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): HIM.PHAR.21 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 – HIM.PHAR.21 for health insurance marketplace and CP.PMN.53 for Medicaid or evidence of coverage documents.

IV. Appendices/General Information
Appendix A: Abbreviation/Acronym Key
FDA: Food and Drug Administration
MDR-TB: multi-drug resistant tuberculosis

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.

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Dosing Regimen</th>
<th>Dose Limit/Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>amikacin/kanamycin</td>
<td>15 mg/kg IM or IV QD or 25 mg/kg PO 3 times weekly</td>
<td>15 mg/kg/day</td>
</tr>
</tbody>
</table>
## Drug Name | Dosing Regimen | Dose Limit/Maximum Dose
---|---|---
capreomycin | 15 mg/kg IM or IV QD or 25 mg/kg PO 3 times weekly | 1,000 mg/day
cycloserine | 10 to 15 mg/kg PO QD or BID | 1,000 mg/day
etambutol | Follow weight-based dosing in prescribing information | 4,000 mg/dose
ethionamide | 10 to 20 mg/kg PO QD or BID | 1,000 mg/day
imipenem-cilastatin* | 1,000 mg IV BID | 2,000 mg/day
levofloxacin | 500 to 1,000 mg PO or IV QD | 1,000 mg/day
linezolid | 600 mg PO or IV QD | 600 mg/day
meropenem* | 2,000 mg IV BID or TID | 6,000 mg/day
moxifloxacin | 400 mg PO or IV QD | 400 mg/day
para-aminosalicylic acid | 8 to 12 g PO BID or TID | 12 g/day
pyrazinamide | Follow weight-based dosing in prescribing information | 4,000 mg/dose
streptomycin | 15 mg/kg IM or IV QD or 25 mg/kg PO 3 times weekly | 20 mg/kg/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.

*Amoxicillin-clavulanic acid should be coadministered with every dose of imipenem-cilastatin or meropenem but is not counted as a separate agent and should not be used as a separate agent.

### Appendix C: Contraindications/Boxed Warnings
- Contraindication(s): none reported
- Boxed warning(s):
  - Increased mortality
  - QT prolongation

### Appendix D: General Information
- Sirturo should only be used in combination with at least 3 other drugs to which the patient’s MDR-TB isolate has been shown to be susceptible in vitro. If in vitro testing results are unavailable, Sirturo treatment may be initiated in combination with at least 4 other drugs to which the patient’s MDR-TB isolate is likely susceptible.
- Sirturo was approved under accelerated approval based on time to sputum culture conversion. Continued approval for its indication may be contingent upon verification and description of clinical benefit in confirmatory trials.
- Laboratory confirmation of multi-drug resistant TB must show TB with an isolate showing genotypic or phenotypic resistance to isoniazid and rifampin.

### V. Dosage and Administration

<table>
<thead>
<tr>
<th>Indication</th>
<th>Dosing Regimen</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDR TB</td>
<td>400 mg PO QD for the first 2 weeks, followed by 200 mg PO three times per week (with at least 48 hours between doses) for 22 weeks (total duration of 24 weeks).</td>
<td>400 mg/dose</td>
</tr>
</tbody>
</table>
### Indication

<table>
<thead>
<tr>
<th>Indication</th>
<th>Dosing Regimen</th>
<th>Maximum Dose</th>
</tr>
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<tbody>
<tr>
<td>Situro should be administered by directly observed therapy (DOT)</td>
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</table>

### VI. Product Availability

Tablet: 100 mg

### VII. References


### Reviews, Revisions, and Approvals

<table>
<thead>
<tr>
<th>Reviews, Revisions, and Approvals</th>
<th>Date</th>
<th>P&amp;T Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy created: adapted from previously approved policy HIM.PA.18 (to be retired); added HIM and Medicaid lines of business; added additional therapy options to Appendix B (alphabetized table) based on 2019 WHO guidelines and commercially available in the US (ethambutol, imipenem-cilastatin, linezolid, meropenem); updated FDA-approved age limit to 12 years of age and older; references reviewed and updated.</td>
<td>08.05.19</td>
<td>11.19</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.

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.

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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.
For Health Insurance Marketplace members, when applicable, this policy applies only when the prescribed agent is on your health plan approved formulary. Request for non-formulary drugs must be reviewed using the non-formulary policy; HIM.PA.103.

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