



## UTILIZATION MANAGEMENT MEDICAL POLICY

**POLICY:** Oncology (Injectable) – Topotecan Products Utilization Management Medical Policy

- Topotecan intravenous infusion (Hycamtin® – Novartis, generics)

**REVIEW DATE:** 12/22/2021

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### OVERVIEW

Topotecan injection, a topoisomerase inhibitor, is indicated for the treatment of patients with:

- **Cervical cancer**, stage IV-B, recurrent, or persistent disease which is not amenable to curative treatment, in combination with cisplatin.
- **Metastatic ovarian cancer**, after disease progression on or after initial or subsequent chemotherapy, as a single agent.
- **Small cell lung cancer (SCLC)**, platinum-sensitive disease that progressed at least 60 days after initiation of first-line chemotherapy, as a single agent.<sup>1</sup>

### Guidelines

Topotecan is included in a variety of National Comprehensive Cancer Network (NCCN) guidelines:

- **Bone cancer** (version 2.2022 – October 8, 2021) clinical practice guidelines recommend topotecan in combination with cyclophosphamide, as second-line therapy for patients with relapsed/refractory, or metastatic osteosarcoma and Ewing sarcoma (both category 2A), and dedifferentiated chondrosarcoma, high-grade undifferentiated pleomorphic sarcoma, and mesenchymal chondrosarcoma (category 2B).<sup>2,7</sup>
- **Central nervous system cancers** (version 2.2021 – September 8, 2021) clinical practice guidelines recommend topotecan as a single agent for the treatment of brain metastases in patients with small cell lung cancer.<sup>2,8</sup> In addition, the guidelines recommend intra-cerebrospinal fluid topotecan for the treatment of leptomeningeal metastases.
- **Cervical cancer** (version 1.2022 – October 26, 2021) clinical practice guidelines recommend topotecan as first-line, second-line, or subsequent therapy for patients with local/regional recurrence, stage IV-B disease, or distant metastases in combination with paclitaxel and bevacizumab (category 1), or in combination with paclitaxel or cisplatin (category 2A).<sup>2,5</sup> It is also recommended as second-line and subsequent therapy for patients with persistent, recurrent, or metastatic small cell neuroendocrine carcinoma of the cervix. Topotecan can be used in combination with paclitaxel with bevacizumab (category 1), in combination with paclitaxel or cisplatin (category 2A), or as a single agent (category 2B).
- **Merkel cell carcinoma** (version 1.2022 – November 17, 2021) clinical practice guidelines recommend topotecan as a treatment option for patients with distant metastatic disease who have contraindications to checkpoint immunotherapy (Bavencio® [avelumab intravenous infusion], Keytruda® [pembrolizumab intravenous infusion], and Opdivo® [nivolumab intravenous infusion]).<sup>2,10</sup>
- **Ovarian cancer** (version 3.2021 – September 9, 2021) clinical practice guidelines recommend topotecan, as a single agent or in combination with bevacizumab or Nexavar® (sorafenib tablet), for the treatment of recurrent or persistent platinum-resistant epithelial ovarian cancer, fallopian tube cancer, and peritoneal cancer.<sup>2,3</sup> Treatment of clinical relapse is a category 2A recommendation and immediate treatment of biochemical relapse is category 2B recommendation.
- **SCLC** (version 2.2022 – November 24, 2021) clinical practice guidelines recommend topotecan as a single agent for patients with a performance status of 0 to 2 and relapse following complete or partial response, or stable disease with initial treatment; or for primary progressive disease.<sup>2,4</sup>

- **Soft tissue sarcoma** (version 2.2021 – April 28, 2021) clinical practice guidelines recommend topotecan as a single agent or in combination with cyclophosphamide for the treatment of non-pleomorphic rhabdomyosarcoma.<sup>2,11</sup>
- **Uterine cancer** (version 1.2022 – November 4, 2021) clinical practice guidelines recommend topotecan as a single agent for the treatment of recurrent, metastatic, or high-risk endometrial carcinoma.<sup>2,6</sup>

### **POLICY STATEMENT**

Prior Authorization is recommended for medical benefit coverage of topotecan. Approval is recommended for those who meet the **Criteria** and **Dosing** for the listed indications. Extended approvals are allowed if the patient continues to meet the Criteria and Dosing. Requests for doses outside of the established dosing documented in this policy will be considered on a case-by-case basis by a clinician (i.e., Medical Director or Pharmacist). All approvals are provided for the duration noted below. Because of the specialized skills required for evaluation and diagnosis of patients treated with topotecan as well as the monitoring required for adverse events and long-term efficacy, approval requires topotecan to be prescribed by or in consultation with a physician who specializes in the condition being treated.

**Automation:** None.

### **RECOMMENDED AUTHORIZATION CRITERIA**

Coverage of topotecan is recommended in those who meet one of the following criteria:

#### **FDA-Approved Indications**

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1. **Cervical Cancer.** Approve for 1 year if the patient meets the following criteria (A, B, and C):
    - A) Patient is  $\geq 18$  years of age; AND
    - B) Patient meets one of the following (i or ii):
      - i. Patient has persistent or recurrent disease; OR
      - ii. Patient has metastatic disease; AND
    - C) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

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2. **Ovarian, Fallopian Tube, and Primary Peritoneal Cancer.** Approve for 1 year if the patient meets the following criteria (A, B, C, and D):
    - A) Patient is  $\geq 18$  years or age; AND
    - B) Patient has persistent or recurrent disease; AND
    - C) The cancer is platinum-resistant; AND
    - D) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

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3. **Small Cell Lung Cancer.** Approve for 1 year if the patient meets the following criteria (A, B, C, and D):
    - A) Patient is  $\geq 18$  years of age; AND
    - B) Patient meets one of the following (i or ii):

- i. Patient has relapsed disease; OR
  - ii. Patient has primary progressive disease; AND
- C) Topotecan will be used as a single agent; AND  
D) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

#### Other Uses with Supportive Evidence

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**4. Bone Cancer.** Approve for 1 year if the patient meets the following criteria (A, B, C, D, and E):

- A) Patient has one of the following (i, ii, iii, iv, or v):
- i. Osteosarcoma; OR
  - ii. Ewing sarcoma; OR
  - iii. Dedifferentiated chondrosarcoma; OR
  - iv. High-grade undifferentiated pleomorphic sarcoma; OR
  - v. Mesenchymal chondrosarcoma; AND
- B) Patient has relapsed, refractory, or metastatic disease; AND  
C) Topotecan is used second-line; AND  
D) Topotecan is used in combination with cyclophosphamide; AND  
E) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

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**5. Brain Metastases.** Approve for 1 year if the patient meets the following criteria (A, B, C, and D):

- A) Patient is ≥ 18 years of age; AND  
B) Patient has small cell lung cancer; AND  
C) Topotecan will be used as a single agent; AND  
D) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

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**6. Endometrial Carcinoma.** Approve for 1 year if the patient meets the following criteria (A, B, C, and D):

- A) Patient is ≥ 18 years of age; AND  
B) Patient has recurrent, metastatic, or high-risk disease; AND  
C) Topotecan will be used as a single agent; AND  
D) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

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**7. Leptomeningeal and Spinal Metastases.** Approve for 1 year if the patient meets the following criteria (A, B, and C):

- A) Patient is ≥ 18 years of age; AND  
B) Topotecan will be administered intraventricularly; AND  
C) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 0.4 mg administered intraventricularly no more frequently than two times a week.

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**8. Merkel Cell Carcinoma.** Approve for 1 year if the patient meets the following criteria (A, B, C, and D):

A) Patient is  $\geq 18$  years of age; AND

B) Patient has distant metastatic disease; AND

C) Patient has contraindications to checkpoint immunotherapy; AND

Note: Checkpoint immunotherapy includes Bavencio (avelumab intravenous infusion), Keytruda (pembrolizumab intravenous infusion), and Opdivo (nivolumab intravenous infusion).

D) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

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**9. Rhabdomyosarcoma.** Approve for 1 year if the patient meets the following criteria (A, B, and C):

A) Patient is  $\geq 18$  years of age; AND

B) Patient has non-pleomorphic rhabdomyosarcoma; AND

C) Topotecan is prescribed by or in consultation with an oncologist.

**Dosing.** Approve up to 1.5 mg/m<sup>2</sup> administered intravenously for up to 5 days in each 21-day cycle.

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**CONDITIONS NOT RECOMMENDED FOR APPROVAL**

Coverage of topotecan is not recommended in the following situations:

1. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

**REFERENCES**

1. Hycamtin intravenous infusion [prescribing information]. East Hanover, NJ: Novartis; October 2019.
2. The NCCN Drugs & Biologics Compendium. © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed on December 15, 2021. Search term: topotecan.
3. The NCCN Ovarian Cancer Clinical Practice Guidelines (version 3.2021 – September 9, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 20, 2021.
4. The NCCN Small Cell Lung Cancer Clinical Practice Guidelines (version 2.2022 – November 24, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 20, 2021.
5. The NCCN Cervical Cancer Clinical Practice Guidelines (version 1.2022 – October 26, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 20, 2021.
6. The NCCN Uterine Cancer Clinical Practice Guidelines (version 1.2022 – November 4, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 20, 2021.
7. The NCCN Bone Cancer Clinical Practice Guidelines (version 2.2022 – October 8, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 15, 2021.
8. The NCCN Central Nervous System Cancers Clinical Practice Guidelines (version 2.2021 – September 8, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 20, 2021.
9. Groves MD, Glantz MJ, Chamberlain MC, et al. A multicenter phase II trial of intrathecal topotecan in patients with meningeal malignancies. *Neuro Oncol.* 2008;208-215.
10. The NCCN Merkel Cell Carcinoma Clinical Practice Guidelines (version 1.2022 – November 17, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 20, 2021.
11. The NCCN Soft Tissue Sarcoma Clinical Practice Guidelines (version 2.2021 – April 28, 2021). © 2021 National Comprehensive Cancer Network. Available at: <http://www.nccn.org>. Accessed December 20, 2021.

## HISTORY

Type of Revision	Summary of Changes	Review Date
Annual Revision	<p><b>Cervical cancer.</b> Revised criteria from patient has local/regional recurrence to patient has persistent or recurrent disease. Removed distant from patient has distant metastases.</p> <p><b>Brain metastases.</b> Removed the patient has recurrent disease criteria.</p> <p><b>Primary central nervous system lymphoma.</b> Remove criteria from the policy (use is no longer supported in guidelines).</p>	12/16/2020
Annual Revision	<p><b>Cervical Cancer:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p> <p><b>Ovarian, Fallopian Tube, and Primary Peritoneal Cancer:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p> <p><b>Small Cell Lung Cancer:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p> <p><b>Brain Metastases:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p> <p><b>Endometrial Carcinoma:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p> <p><b>Leptomeningeal and Spinal Metastases:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p> <p><b>Merkel Cell Carcinoma:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p> <p><b>Rhabdomyosarcoma:</b> Added requirement that the patient is <math>\geq 18</math> years of age.</p>	12/22/2021