

Blood Brain Barrier Osmotic Disruption for Treatment of Brain Tumors (NCD 110.20)

Guideline Number: MPG029.06
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[↪ Terms and Conditions](#)

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Related Medicare Advantage Coverage Summaries

- [Blood, Blood Products and Related Procedures and Drugs](#)
- [Chemotherapy, and Associated Drugs and Treatments](#)

Policy Summary

[↪ See Purpose](#)

Overview

The blood brain barrier (BBB) of the central nervous system is characterized by tight junctions between vascular endothelial cells, which prevent or impede various naturally occurring and synthetic substances (including anti-cancer drugs) from entering brain tissue. The BBB may be partly responsible for the poor efficacy of chemotherapy for malignant primary or metastatic brain tumors.

The BBBD is the disruption of the tight junctions between the endothelial cells that line the capillaries in the brain accomplished by osmotic disruption, bradykinin or irradiation. Theoretically, disruption of the BBB may, in the treatment of brain tumors, increase the concentration of chemotherapy drugs delivered to the tumor and may prolong the drug-tumor contact time.

Osmotic disruption of the BBB is the most common technique used. Chemotherapeutic agents are given in conjunction with barrier disruption. The BBBD process includes all items and services necessary to perform the procedure, including hospitalization, repeated imaging procedures, and monitoring.

Guidelines

Nationally Non-Covered Indications

The Centers for Medicare & Medicaid Services determines that the use of osmotic BBBD is not reasonable and necessary when it is used as part of a treatment regimen for brain tumors.

Other

This NCD does not alter in any manner the coverage of anti-cancer chemotherapy.

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws

that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

| CPT Code | Description |
|----------|------------------------------------|
| 64999 | Unlisted procedure, nervous system |
| 96549 | Unlisted chemotherapy procedure |

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References

CMS National Coverage Determinations (NCDs)

[NCD 110.20 Blood Brain Barrier Osmotic Disruption for Treatment of Brain Tumors](#)

CMS Local Coverage Determinations (LCDs) and Articles

| LCD | Article | Contractor | Medicare Part A | Medicare Part B |
|-----|---|-------------|-----------------|-----------------|
| N/A | A57742 Billing and Coding: National Noncovered Services | First Coast | FL, PR, VI | FL, PR, VI |

Other(s)

[CMS Medicare Original Consideration Decision Memo for Blood Brain Barrier Disruption \(BBBD\) Chemotherapy \(CAG-00333N\)](#)

Guideline History/Revision Information

Revisions to this summary document do not in any way modify the requirement that services be provided and documented in accordance with the Medicare guidelines in effect on the date of service in question.

| Date | Summary of Changes |
|------------|---|
| 04/01/2021 | Template Update <ul style="list-style-type: none"> Reformatted policy; transferred content to new template |
| 09/09/2020 | Supporting Information <ul style="list-style-type: none"> Updated <i>References</i> section to reflect the most current information Archived previous policy version MPG029.05 |

Purpose

The Medicare Advantage Policy Guideline documents are generally used to support UnitedHealthcare Medicare Advantage claims processing activities and facilitate providers' submission of accurate claims for the specified services. The document can be used as a guide to help determine applicable:

- Medicare coding or billing requirements, and/or
- Medical necessity coverage guidelines; including documentation requirements.

UnitedHealthcare follows Medicare guidelines such as NCDs, LCDs, LCAs, and other Medicare manuals for the purposes of determining coverage. It is expected providers retain or have access to appropriate documentation when requested to support coverage. Please utilize the links in the [References](#) section below to view the Medicare source materials used to develop this resource document. This document is not a replacement for the Medicare source materials that outline Medicare coverage requirements. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

Terms and Conditions

The Medicare Advantage Policy Guidelines are applicable to UnitedHealthcare Medicare Advantage Plans offered by UnitedHealthcare and its affiliates.

These Policy Guidelines are provided for informational purposes, and do not constitute medical advice. Treating physicians and healthcare providers are solely responsible for determining what care to provide to their patients. Members should always consult their physician before making any decisions about medical care.

Benefit coverage for health services is determined by the member specific benefit plan document* and applicable laws that may require coverage for a specific service. The member specific benefit plan document identifies which services are covered, which are excluded, and which are subject to limitations. In the event of a conflict, the member specific benefit plan document supersedes the Medicare Advantage Policy Guidelines.

Medicare Advantage Policy Guidelines are developed as needed, are regularly reviewed and updated, and are subject to change. They represent a portion of the resources used to support UnitedHealthcare coverage decision making. UnitedHealthcare may modify these Policy Guidelines at any time by publishing a new version of the policy on this website. Medicare source materials used to develop these guidelines include, but are not limited to, CMS National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), Medicare Benefit Policy Manual, Medicare Claims Processing Manual, Medicare Program Integrity Manual, Medicare Managed Care Manual, etc. The information presented in the Medicare Advantage Policy Guidelines is believed to be accurate and current as of the date of publication and is provided on an "AS IS" basis. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

You are responsible for submission of accurate claims. Medicare Advantage Policy Guidelines are intended to ensure that coverage decisions are made accurately based on the code or codes that correctly describe the health care services provided. UnitedHealthcare Medicare Advantage Policy Guidelines use Current Procedural Terminology (CPT®), Centers for Medicare and Medicaid Services (CMS), or other coding guidelines. References to CPT® or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee claims payment.

Medicare Advantage Policy Guidelines are the property of UnitedHealthcare. Unauthorized copying, use, and distribution of this information are strictly prohibited.

*For more information on a specific member's benefit coverage, please call the customer service number on the back of the member ID card or refer to the [Administrative Guide](#).