

Corporate Medical Policy

Cryosurgical Ablation of Primary or Metastatic Liver Tumors

File Name:	cryosurgical_ablation_of_primary_or_metastatic_liver_tumors
Origination:	8/2010
Last CAP Review:	8/2011
Next CAP Review:	8/2012
Last Review:	3/2012

Description of Procedure or Service

Cryosurgical ablation involves freezing of target tissues, most often by inserting into the tumor a probe through which coolant is circulated. Cryosurgical ablation is generally performed as an open surgical technique but may be performed percutaneously or laparoscopically, typically with ultrasound guidance.

Hepatic tumors can arise either as primary liver cancer or by metastasis to the liver from other tissues. Local therapy for hepatic metastasis is indicated only when there is no extrahepatic disease, which rarely occurs for patients with primary cancers other than colorectal carcinoma or certain neuroendocrine malignancies. At present, surgical resection with tumor-free margins or liver transplantation represents the only treatments with curative potential. For liver metastases from colorectal cancer, post-surgical adjuvant chemotherapy has been reported to decrease recurrence rates and prolong time to recurrence. However, most hepatic tumors are unresectable at diagnosis, due either to their anatomic location, size, number of lesions, or underlying liver reserve. Combined systemic and hepatic arterial chemotherapy may increase disease-free intervals for patients with hepatic metastases from colorectal cancer, but apparently is not beneficial for those with unresectable hepatocellular carcinoma.

Various locoregional therapies for unresectable liver tumors are being studied: cryosurgical ablation (cryosurgery), radiofrequency ablation, laser ablation, trans-hepatic artery embolization/chemoembolization, microwave coagulation, and percutaneous ethanol injection. Ablation occurs in tissue that has been frozen by at least 3 mechanisms: 1) formation of ice crystals within cells thereby disrupting membranes, and interrupting cellular metabolism among other processes; 2) coagulation of blood, thereby interrupting blood flow to the tissue in turn causing ischemia and cell death; and 3) induction of apoptosis (cell death).

Recent studies report experience with cryosurgical and other ablative methods used in combination with subtotal resection and/or procedures such as TACE (transarterial chemoembolization).

Related policies:

Radiofrequency Ablation of Pulmonary Tumors
Chemoembolization of the Hepatic Artery, Transcatheter Approach
Radioembolization for Primary and Metastatic Tumors of the Liver

Related evidence-based guideline:

Radiofrequency Ablation of Primary or Metastatic Liver Tumors

*****Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.**

Cryosurgical Ablation of Primary or Metastatic Liver Tumors

Policy

Cryosurgical Ablation of Primary or Metastatic Liver Tumors is considered investigational for all applications. BCBSNC does not cover investigational services or procedures.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Cryosurgical Ablation of Primary or Metastatic Liver Tumors is covered

Not applicable.

When Cryosurgical Ablation of Primary or Metastatic Liver Tumors is not covered

Cryosurgical ablation of either primary or metastatic tumors in the liver is considered investigational. BCBSNC does not cover investigational services.

Policy Guidelines

Most patients in published series were candidates for cryosurgery because of unresectable disease, due either to large number of metastases, inaccessible location (e.g., near large vessels), or insufficient hepatic reserve to support resection. However, some of the studies included patients with resectable tumors, as well as patients with unresectable tumors. Furthermore some studies pooled results for mixed series of patients with liver metastases from various non-colorectal cancers (e.g., breast, sarcoma, ovarian, testicular, pancreatic, esophageal, head and neck) despite the differing characteristics and prognoses of these malignancies. Few controlled studies were found and those had methodological weaknesses including lack of randomization, noncomparable groups. Therefore, published outcomes of cryosurgery are inconclusive. The recent literature provides little new information on cryosurgical techniques, and interest appears to be concentrated on radiofrequency ablation.

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Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: 47371, 47381, 76940

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.75, 3/2010

Medical Director Review - 7/2010

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.75, 3/10/2011

Specialty Matched Consultant Advisory Panel - 8/2011

BCBSA Medical Policy Reference Manual [Electronic Version]. 7.01.75, 12/8/2011

Medical Director - 3/2012

Policy Implementation/Update Information

8/17/10 New policy. Cryosurgical ablation of either primary or metastatic tumors in the liver is investigational. Reviewed with Medical Director 7/21/2010. Notice given 8/31/2010. Policy effective 12/7/2010. (btw)

5/24/11 "Policy" statement reformatted for consistency, no change to policy intent. References added. (btw)

10/1/11 Specialty Matched Consultant Advisory Panel review August 31, 2011. No change to policy. (btw)

4/17/12 Policy Guidelines revised. Reference added. Medical Director review 3/21/2012. (btw)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.