Medical Policy
Cryosurgical Ablation of Primary or Metastatic Liver Tumors

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Policy Number: 633
BCBSA Reference Number: 7.01.75

Related Policies
• Isolated Limb Perfusion, #124
• Radiofrequency Ablation of Miscellaneous Solid Tumors Excluding Liver Tumors, #259
• Cryosurgical Ablation of Miscellaneous Solid Tumors Other Than Liver, Prostate or Dermatologic Tumors, #260
• Radiofrequency Ablation of Primary or Metastatic Liver Tumors, #286

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO Blue<sup>SM</sup> and Medicare PPO Blue<sup>SM</sup> Members
Cryosurgical ablation of either primary or metastatic tumors in the liver is INVESTIGATIONAL.

Prior Authorization Information
Commercial Members: Managed Care (HMO and POS)
This is NOT a covered service.

Commercial Members: PPO, and Indemnity
This is NOT a covered service.

Medicare Members: HMO Blue<sup>SM</sup>
This is NOT a covered service.

Medicare Members: PPO Blue<sup>SM</sup>
This is NOT a covered service.

CPT Codes / HCPCS Codes / ICD-9 Codes
The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s
contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>47371</td>
<td>Laparoscopy, surgical, ablation of 1 or more liver tumor(s); cryosurgical</td>
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<tr>
<td>47381</td>
<td>Ablation, open, 1 or more liver tumor(s); cryosurgical</td>
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Description

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. For liver metastases from colorectal cancer, post-surgical adjuvant chemotherapy has been reported to decrease recurrence rates and prolong time to recurrence. 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.

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 (US) guidance. 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).

Summary

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. Thus, cryoablation for primary or metastatic liver tumors is investigational.

Policy History

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<tr>
<th>Date</th>
<th>Group and Specialties</th>
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<td>7/2011</td>
<td>Reviewed - Medical Policy Group - Hematology and Oncology</td>
<td>No changes to policy statements.</td>
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<td>6/2010</td>
<td>BCBSA National medical policy review.</td>
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<td>9/2009</td>
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<td>Changes to policy statements.</td>
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**Information Pertaining to All Blue Cross Blue Shield Medical Policies**

Click on any of the following terms to access the relevant information:
- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

**References**


