

**EFFECTIVE DATE:** 03/01/2011  
**POLICY LAST UPDATED:** 04/03/2012

### OVERVIEW

This policy documents the coverage determination for Cryosurgical Ablation of Hepatic Tumors. Cryosurgical ablation involves the use of extreme cold to destroy abnormal tissue. Liquid nitrogen or argon gas is circulated through a hollow probe that is placed in contact with the tissue to be destroyed.

### PRIOR AUTHORIZATION

Not Applicable

### POLICY STATEMENT

#### **BlueCHiP for Medicare and Commercial**

Cryosurgical ablation of either primary or metastatic tumors in the liver is considered not medically necessary as there is insufficient evidence to draw conclusions about its effectiveness.

### MEDICAL CRITERIA

None

### BACKGROUND

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 extra hepatic 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.

Cryosurgical ablation (hereafter, cryosurgery) involves the use of extreme cold to destroy abnormal tissue. Liquid nitrogen or argon gas is circulated through a hollow probe that is placed in contact with the tissue to be destroyed. A mass of ice crystals forms around the tip of the probe and freezes nearby cells. After cryosurgery, the ablated tissue is absorbed by the body. Cryosurgery may be performed as an open surgical technique or as a closed procedure under laparoscopic or ultrasound guidance.

Cryosurgical ablation therapy for unresectable liver tumors is being studied yet there is a lack of sufficient rigorous data to draw conclusions about the impact of cryosurgical ablation on clinical outcomes compared to existing alternatives for those with colorectal cancer metastatic to the liver. The MEDLINE search did not identify any articles that provide additional relevant data related to other applications of cryoablation for liver tumor, such as hepatocellular carcinoma. Overall, the data for cryosurgical ablation of liver tumors is of lower quality than the data for radiofrequency ablation of liver tumors. Therefore, this technique is considered investigational.

## COVERAGE

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement for applicable Services Not Medically Necessary coverage/benefits.

## CODING

### Blue CHiP for Medicare and Commercial

The following cryosurgery CPT codes are considered not medically necessary:

47371 47381

## RELATED POLICIES

None

## PUBLISHED

Provider Update Aug 2011

Provider Update Dec 2010

Provider Update May 2008

## REFERENCES

Charles H. Scudmore, MD, FRCS, FACS, Emma J. Patterson BSc(Hon), MD, AM, James Chapiro, MB, FRCS, and Andrzej K. Buczkowski, MD, Live Tumor Ablation Techniques, Investigative Surgery, Volume 10: 157-164 July/August 1997.

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