



## Liver Tumor Treatment

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LOB(s): <input checked="" type="checkbox"/> Commercial  <input checked="" type="checkbox"/> Medicare  <input checked="" type="checkbox"/> Medicaid	State(s): <input checked="" type="checkbox"/> Idaho <input checked="" type="checkbox"/> Montana <input checked="" type="checkbox"/> Oregon <input checked="" type="checkbox"/> Washington <input type="checkbox"/> Other:  <input checked="" type="checkbox"/> Oregon <input type="checkbox"/> Washington
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## Enterprise Policy

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*Clinical Guidelines are written when necessary to provide guidance to providers and members in order to outline and clarify coverage criteria in accordance with the terms of the Member's policy. This Clinical Guideline only applies to PacificSource Health Plans, PacificSource Community Health Plans, and PacificSource Community Solutions in Idaho, Montana, Oregon, and Washington. Because of the changing nature of medicine, this list is subject to revision and update without notice. This document is designed for informational purposes only and is not an authorization or contract. Coverage determinations are made on a case-by-case basis and subject to the terms, conditions, limitations, and exclusions of the Member's policy. Member policies differ in benefits and to the extent a conflict exists between the Clinical Guideline and the Member's policy, the Member's policy language shall control. Clinical Guidelines do not constitute medical advice nor guarantee coverage.*

## Background

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Hepatic tumors can arise either as primary liver cancer (e.g., hepatocellular carcinoma) or by metastasis to the liver from other primary cancer sites. Local therapy for hepatic metastasis may be indicated when there is no extrahepatic disease. Early diagnosis is crucial for curative treatments. Surgical resection, radiofrequency ablation and liver transplantation are considered the cornerstones of curative therapy, while for patients with more advanced hepatocellular carcinoma recommended options include; sorafenib and trans-arterial chemoembolization. Locoregional therapies are proposed as a treatment for unresectable hepatic tumors, both as primary treatment, palliative treatment, and as a bridge to liver transplant. In the case of liver transplants, the intent is to reduce tumor progression while awaiting transplantation and to preserve a member's candidacy for liver transplant during the wait time for a donor organ.

### Treatment Options for Locoregional Therapy:

#### **Chemoembolization/Embolization**

Transcatheter Arterial Chemoembolization (TACE) is a non-surgical procedure performed by interventional radiologists and interventional neuroradiologists. It involves injection of anti-cancer drugs and selective occlusion of blood vessels feeding a tumor, in effect trapping the drug and blocking blood flow to the tumor.

Transcatheter Arterial Embolization (TAE) is a non-surgical procedure performed by interventional radiologists and interventional neuroradiologists. It involves blocking the blood supply to a tumor using gelatin or small beads.

## **Radioembolization**

Radioembolization is a form of radiation therapy done in an outpatient setting by interventional radiologists to treat liver cancer. Radioactive particles (microspheres) are delivered through the bloodstream to the liver tumor via the hepatic artery. Radioactivity decreases gradually over a two-week period and response to treatment is assessed at 30 days. Treatment may be repeated.

## **Percutaneous Ethanol Injection**

Using a needle, percutaneous ethanol injection (PEI) delivers an injection of 95 percent ethanol directly into a tumor. Multiple treatment sessions may be performed in order to achieve tumor destruction. Like other local ablative techniques, PEI is most successful in small HCC tumors when resection is not an option.

## **Cryosurgical Ablation**

Cryosurgical ablation destroys cells by freezing target tissues, most often by inserting a probe into the tumor through which coolant is circulated. Cryosurgery may be performed as an open surgical technique or as a closed procedure under laparoscopic or ultrasound guidance.

## **Radiofrequency Ablation**

Radiofrequency ablation (RFA) destroys cells (cancerous and normal) by applying a heat-generating rapidly alternating radiofrequency current through probes inserted into the tumor. The cells ablated by RFA are not removed but are gradually replaced by fibrosis and scar tissue. If there is local recurrence, it occurs at the edge of this scar tissue and, in some cases, may be retreated. RFA can be performed as an open surgical procedure, laparoscopically, or percutaneously with ultrasound or computed tomography (CT) guidance.

## **Microwave Ablation**

Microwave ablation (MWA) is a technique in which the use of microwave energy induces a high-speed alternating electric field which causes water molecule rotation and the creation of heat. MWA uses ultrasound, computed tomography (CT), or magnetic resonance imaging (MRI) to guide placement of a needle-like probe into a tumor. This results in thermal coagulation and localized tissue necrosis. Multiple antennas may also be used simultaneously to ablate multiple tumors. MWA can be performed surgically, percutaneously, or laparoscopically and is most often performed by a specially trained interventional radiologist in a radiology suite or in the operating room.

## **Criteria**

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### **Commercial**

#### **Prior authorization is required**

#### **I. Chemoembolization/ Embolization- Transcatheter Arterial Chemoembolization (TACE) or Transcatheter Arterial Embolization (TAE)**

PacificSource considers Transcatheter Arterial Chemoembolization or Transcatheter Arterial Embolization for hepatic malignancy medically necessary for the following indications:

- A.** Palliative treatment for hepatic tumors when other treatments have failed to control liver tumor related symptoms

- B. Hepatocellular carcinoma as a primary treatment for either surgically unresectable primary hepatocellular carcinoma or as a bridge to liver transplantation when **ALL** of the following criteria is met:
  - 1. Preserved liver function defined as Childs-Turcotte-Pugh Class A or B
  - 2. Three (3) or fewer encapsulated nodules and each nodule is less than or equal to 5 centimeters in diameter
  - 3. No evidence of extra-hepatic metastases
  - 4. No evidence of severe renal function impairment
  - 5. No evidence of portal vein occlusion
- C. Neuroendocrine Cancers (i.e., carcinoid tumors and pancreatic endocrine tumors) involving the liver when **ALL** of the following criteria is met:
  - 1. Liver tumor related symptoms persist despite systemic therapy
  - 2. Tumor(s) are not eligible of surgical resection

## II. Radioembolization

PacificSource considers Radioembolization with TheraSpheres or SIR-Spheres medically necessary for the following indications:

- A. Unresectable Tumors when **ONE** of the following criteria is met:
  - 1. Unresectable primary-hepatocellular liver cancer
  - 2. Unresectable metastatic liver (hepatocellular) tumors from primary colorectal cancer
  - 3. Unresectable cholangiocarcinoma
- B. Bridge to transplant or downstaging therapy on a case-by-case review with Medical Director approval

## III. Transarterial Chemoembolization combined with Radiofrequency Ablation

PacificSource considers Transarterial Chemoembolization combined with Radiofrequency Ablation medically necessary for hepatocellular carcinoma with small to intermediate-size (3-5 cm) tumors who are not candidates for surgery.

## IV. Percutaneous Ethanol Injection, Cryoablation, Radiofrequency and Microwave Ablation

PacificSource considers percutaneous ethanol injection, cryoablation, radiofrequency and microwave local ablative techniques medically necessary for liver tumors when **ONE** of the following is met:

- A. Member is not currently awaiting liver transplantation, and **ONE** or more of the following criteria is met:
  - 1. Unresectable primary liver tumors with **ALL** of the following criteria is met:
    - a. Tumor(s) is 5 cm or less in diameter
    - b. There are no more than 3 hepatic lesions throughout the liver
    - c. There is documentation that the tumor(s) is unresectable (e.g., due to comorbidities or an estimate of inadequate liver volume following resection)
  - 2. Hepatic metastases from colorectal tumor(s) when **ALL** of the following criteria is met:

- a. The metastatic tumor(s) is 5 cm or less in diameter
  - b. There are no more than 5 hepatic lesions throughout the liver
  - c. There is documentation that the tumor(s) is unresectable (e.g., due to comorbidities, or an estimate of inadequate liver volume following resection)
  - d. No extrahepatic metastatic disease is present
3. Hepatic metastases from neuroendocrine tumors when **ALL** of the following criteria are met:
- a. Systemic therapy has failed to control disease symptoms
  - b. There is documentation that the tumor(s) is unresectable (e.g., due to comorbidities or an estimate of inadequate liver volume following resection)
- B. As a bridge to liver transplantation when the intent is to prevent tumor progression or decrease tumor size to achieve or maintain a member's candidacy for liver transplant

### Medicaid

PacificSource Community Solutions follows Oregon Administrative Rules (OARs) 410-141- 3820 to 3830 and Statement of Intent 1 and Guideline Notes 12, 78, & 185 of the OHP Prioritized List of Health Services for coverage of Chemoembolization and Radioembolization of Liver Tumors.

PacificSource Community Solutions follows Oregon Administrative Rules (OAR) 410-120-1200 and 410-141-3820 through 3830 for coverage of Ablation of Primary and Metastatic Liver Tumors.

PacificSource Community Solutions considers HCPCS code 47383 to have no evidence of effectiveness for both hepatocellular carcinoma and metastatic disease per Guideline Note 173 of the Oregon Health Plan (OHP) OHP Prioritized List of Health Services.

### Medicare

PacificSource Medicare follows National Coverage Determination 20.28 for Therapeutic Embolization and Local Coverage Article A52950: Billing and Coding: Treatment with Yttrium-90 microspheres.

PacificSource Medicare follows CMS guidelines and criteria. In the absence of CMS guidelines and criteria, PacificSource Medicare will follow internal policy for determination of coverage and medical necessity.

### Experimental, Investigational, or Unproven

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PacificSource considers Transcatheter Arterial Chemoembolization (TACE) to be experimental, investigational, or unproven to treat liver metastases for any other tumor types not noted above.

PacificSource considers percutaneous ethanol injection, cryoablation, radiofrequency and microwave ablation to be experimental, investigational, or unproven as treatment for all other benign or malignant liver tumors that do not meet the medical necessity criteria above.

## Coding Information

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The following list of codes are for informational purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

- 37241 Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; venous, other than hemorrhage (e.g., congenital or acquired venous malformations, venous and capillary hemangiomas, varices, varicoceles)
- 37242 Arterial, other than hemorrhage or tumor (e.g., congenital or acquired arterial malformations, arteriovenous malformations, arteriovenous fistulas, aneurysms, pseudoaneurysm)
- 37243 Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for tumors, organ ischemia, or infarction
- 37244 Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for arterial or venous hemorrhage or lymphatic extravasation
- 47370 Laparoscopy, surgical, ablation of one or more liver tumor(s); radiofrequency
- 47371 Laparoscopy, surgical, ablation of 1 or more liver tumor(s); cryosurgical
- 47379 Unlisted laparoscopic procedure, liver
- 47380 Ablation, open, of 1 or more liver tumor(s); radiofrequency
- 47381 Ablation, open, of 1 or more liver tumor(s); cryosurgical
- 47382 Ablation, 1 or more liver tumor(s), percutaneous, radiofrequency
- 47383 Ablation, 1 or more liver tumor(s), percutaneous, cryoablation
- 47399 Unlisted procedure, liver
- 75894 Transcatheter therapy, embolization, any method, radiological supervision, and interpretation
- 79445 Radiopharmaceutical therapy, by intra-arterial particulate administration
- C2616 Brachytherapy source, Yttrium-90, per source
- S2095 Transcatheter occlusion or embolization for tumor destruction, percutaneous, any method, using Yttrium-90 microspheres

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HCPCS® codes, descriptions and materials are copyrighted by Centers for Medicare and Medicaid Services (CMS).

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## Appendix

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**Applicable regulation(s):** (OARs) 410-120-1200 and 410-141- 3820 to 3830, Statement of Intent 1, Guideline Notes 12, 78, 173 and 185; NCD 20.28; Article A52950

**Commercial Ops:** 11/2023

**Government Ops:** 12/2023