Policy Name: Radioembolization for Hepatic Tumors  
Effective Date: 2/1/2017

Important Information – Please Read Before Using This Policy

These services may or may not be covered by all Medica plans. Please refer to the member’s plan document for specific coverage information. If there is a difference between this general information and the member’s plan document, the member’s plan document will be used to determine coverage. With respect to Medicare, Medicaid and MinnesotaCare members, this policy will apply unless these programs require different coverage. Members may contact Medica Customer Service at the phone number listed on their member identification card to discuss their benefits more specifically. Providers with questions about this Medica coverage policy may call the Medica Provider Service Center toll-free at 1-800-458-5512.

Medica coverage policies are not medical advice. Members should consult with appropriate health care providers to obtain needed medical advice, care and treatment.

Coverage Policy
Radioembolization for hepatic tumors is COVERED for the treatment of:
   a. unresectable primary hepatocellular carcinoma
   b. unresectable metastatic liver tumors from primary colorectal cancer
   c. unresectable metastatic liver tumors from neuroendocrine tumors
   d. unresectable primary hepatocellular carcinoma as a bridge to transplantation.

Radioembolization for hepatic tumors is investigative and therefore NOT COVERED for the treatment of all other indications.

Note: This determination does not apply to devices that have an FDA-approved humanitarian device exemption (HDE), e.g., TheraSphere (MDS Nordion Inc.; currently manufactured by BTG International Inc.). Medica considers an FDA-approved HDE device medically necessary when all of the FDA-required criteria are met. For a current list of HDE-approved devices, refer to the FDA HDE Database at: http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DeviceApprovalsandClearances/HDEApprovals/ucm161827.htm.

Note: See related Medica coverage policies: Chemoembolization for Hepatic Tumors and Pelvic Vein Embolization.

Description
Radioembolization is a treatment for unresectable hepatic (liver) tumors that is used as an alternative means to deliver radiation. A physician inserts a catheter at the femoral artery into the hepatic artery and injects the microscopic beads (glass or resin) that contain the radioactive element. The microscopic beads become lodged in the blood vessels surrounding the tumor thereby delivering high doses of radiation directly to the tumor(s). This is less toxic to the adjacent, healthy tissue than radiation delivered by other means. After approximately two weeks, the radiation dissipates, but the beads remain in the liver permanently. The goal of the procedure is to irradiate and destroy the tumor(s) while sparing normal liver tissue.
Also known as:
1. Transarterial Radioembolization (TARE)
2. Yttrium-90 microsphere radioembolization (SIR-Spheres or TheraSphere)
3. Selective internal radiation therapy (SIRT)
4. Intrahepatic microsphere radiation (IMR)

FDA Approval
The use of microspheres for the treatment of unresectable liver cancer is a procedure and therefore not subject to FDA regulation. However, devices, drugs, biologics or tests used as a part of this procedure may be subject to FDA regulation. Examples include, but are not limited to:
1. *SIR-Spheres (Sirtex Medical Ltd.)*: FDA issued Premarket Approval (PMA) on March 5, 2002 for treatment of unresectable metastatic liver tumors from primary colorectal cancer with floxuridine adjuvant intrahepatic artery chemotherapy.
2. *TheraSphere (MDS Nordion Inc.; currently manufactured by BTG International Inc.)*: FDA issued a Humanitarian Device Exemption (HDE) on December 10, 1999 for radiation treatment or as a neoadjuvant to surgery or transplantation in patients with unresectable hepatocellular carcinoma (HCC) who can have placement of appropriately positioned hepatic arterial catheters.

Prior Authorization
Prior authorization is not required. However, services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial may result if criteria are not met.

Coding Considerations
Use the current applicable CPT/HCPCS code(s). The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

CPT Codes
- 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 (eg, congenital or acquired venous malformations, venous and capillary hemangiomas, varices, varicoceles)
- 37242 - Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; arterial, other than hemorrhage or tumor (eg, congenital or acquired arterial malformations, arteriovenous malformations, arteriovenous fistulas, aneurysms, pseudoaneurysms)
- 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
- 77778 - Interstitial radiation source application, complex, includes supervision, handling, loading of radiation source, when performed
- 75894 - Transcatheter therapy, embolization, any method, radiological supervision and interpretation
- 79445 - Radiopharmaceutical therapy, by intra-arterial particulate administration
- S2095 - Transcatheter occlusion or embolization for tumor destruction, percutaneous, any method, using yttrium-90 microspheres
- C2616 - Brachytherapy source, non-stranded, yttrium-90, per source
- Q3001 - Radioelements for brachytherapy, any type, each