

Medical Affairs Policy & Procedure

Title/Service: Selective Internal Radiation Therapy (SIRT) for Liver Tumors (SIR-Spheres, Theraspheres)

Revised	
Reviewed	04/20/07, 11/16/07, 11/21/08, 12/28/09, 10/22/10, 11/18/11
Developed	
Policy Committee Approval	11/18/11

Description:

Selective internal radiation therapy is a procedure that involves the placement of radioactive spheres using an intra-arterial catheter to the site of a malignant liver lesion.

Indications of Coverage:

Selective internal radiation therapy is considered medically necessary for the treatment of one of the following:

Unresectable hepatocellular carcinoma (HCC) lesions

Unresectable metastatic liver tumors from primary colorectal cancer

Unresectable metastatic liver tumors from primary neuroendocrine tumors

Limitations of Coverage:

Review contract and endorsements for exclusions and prior authorization or benefit requirements.

If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental or investigative.

If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria are not met, deny as not medically necessary.

Selective internal radiation therapy is considered not medically necessary for individuals where a vascular abnormality has been identified that would not allow the catheter to be passed to the target vessel.

Documentation Required:

- Office notes
- Procedure report

Rationale:

Five-year survival rates for unresectable hepatic malignancies despite treatment options that include chemotherapy, radiofrequency ablation, cryotherapy, and surgical resection. This is largely due to the inaccessibility of the malignant lesions for the purposes of resection and because significant liver damage occurs with low doses of radiation, conventional external radiation therapy is rarely recommended. Selective internal radiation therapy may provide sufficient radiation to limit progression of the disease while minimizing liver damage. Although the package labeling for Selective Internal Radiation devices limits the use to individuals with hepatocellular cancer and metastatic liver lesions from primary colon cancer, guidelines from the National Comprehensive Cancer Network recommend use of the devices for metastatic liver lesions from neuroendocrine cancers as well. There are numerous ongoing studies evaluating the effectiveness of Selective Internal Radiation treatment with chemotherapy medications.

References:

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3. MDS Nordion Inc. TheraSphere Yttrium-90 glass microspheres. Package Insert. Rev. 6. Kanata, ON: MDS Nordion; 1999. Available at:
www.mds.nordion.com/therasphere/physicians-package-insert/package-insert-us.pdf. Accessed: 7 Oct 10.
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5. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Hepatobiliary Cancers. V.2.2010. Available at:
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6. National Comprehensive Cancer Network (NCCN). Clinical Practice Guidelines in Oncology: Neuroendocrine Tumors. V.2.2010. Available at:
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7. SIRTeX Medical Ltd. Current Treatment Regimens for Liver Cancer- clinical information. Date of Issue: September 2006. Available at: www.sirtex.com. Accessed: 7 Oct 10.



8. Wisconsin Physicians Service Medicare Local Coverage Determination (LCD):
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Malignancy
(90Y-Microsphere Hepatic Brachytherapy). LCD RAD-038. Revised: 04/19/2010.
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Approved by the Medical Director