

SIRTeX

SIR-Spheres®  
Y-90 resin microspheres

# 2024 Coding Guide

**Office-Based Labs**

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## What are SIR-Spheres® yttrium-90 resin microspheres?

SIR-Spheres® yttrium-90 resin microspheres are microscopic spheres that are delivered via Selective Internal Radiation Therapy (SIRT) to liver tumors. The polymer microspheres with an average diameter of approximately 32.5 microns, are loaded with yttrium-90 (Y-90). After administration to the hepatic artery, SIR-Spheres yttrium-90 resin microspheres lodge preferentially in the vasculature of the tumor. The beta radiation remains localized, penetrating a mean of 2.5 mm in the tissue, destroying the tumor cells. Due to the half-life of 64.1 hours, most radiation (94%) is delivered in 11 days. The microspheres are biologically inert and are not metabolized or excreted. Each vial is for a single patient use.

SIR-Spheres yttrium-90 resin microspheres are the ONLY fully FDA PMA approved yttrium-90 microspheres for the treatment of mCRC in the liver.<sup>1,2,3</sup>

Delivered through the hepatic artery, SIR-Spheres yttrium-90 resin microspheres directly target liver tumors with yttrium-90 beta radiation, minimizing healthy tissue exposure.

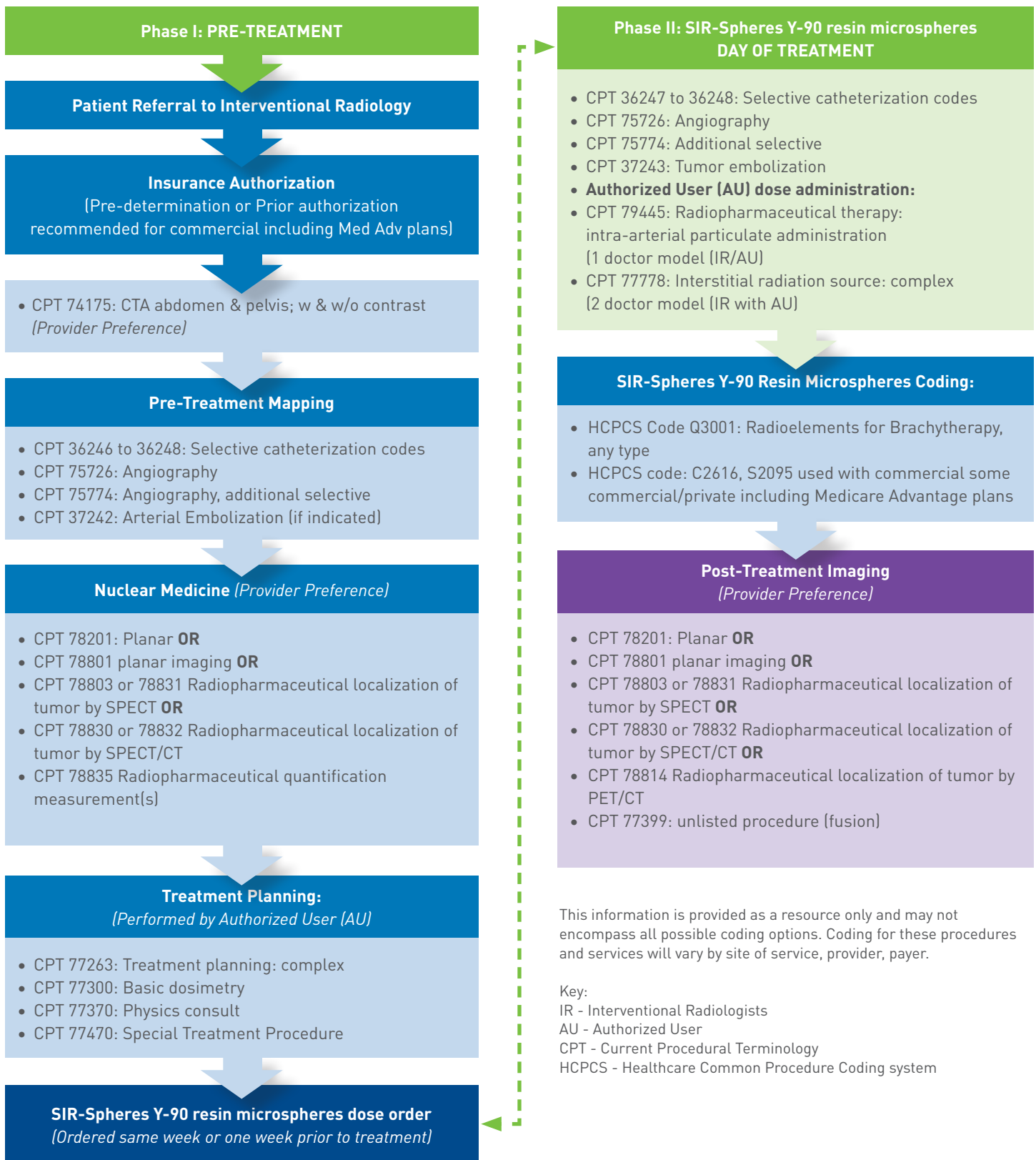
### SIR-Spheres Y-90 resin microspheres

Microsphere material	Biocompatible Polymer
Isotope	Yttrium-90 permanently bound to the microspheres
Diameter	~32.5 µm
Penetration in tissue	2.5 mm mean; 11 mm maximum range
Half life	64.1 hours; 94% of the radiation decayed in 11 days
How supplied	3 GBq or 81 mCi per vial +/- 10% at the time of calibration
Number of particles per vial	40-80 million

**Caution:** Federal (USA) law restricts this device to sale by or on the order of a physician. **Indications for Use:** SIR-Spheres Y-90 resin microspheres are indicated for the treatment of unresectable metastatic liver tumors from primary colorectal cancer with adjuvant intrahepatic artery chemotherapy (IHAC) of FUDR (Floxuridine). **Warnings / Precautions:** Inadvertent delivery of the microspheres to locations other than the intended hepatic tumor may result in local radiation damage. Due to the radioactivity and the significant consequences of misplacing the microspheres in situ, this product must be implanted by physicians who have completed the Sirtex TEC training program. A SPECT scan of the upper abdomen immediately after implantation is recommended. Patients may experience abdominal pain immediately after administration and pain relief may be required. H-2 blocking agents may be administered the day before implantation and continued as needed to reduce gastric complications. **Side Effects:** Common side effects are fever, transient decrease of hemoglobin, mild to moderate abnormality of liver function tests, abdominal pain, nausea, vomiting, and diarrhea. Potential serious effects due to exposure to high radiation include acute pancreatitis, radiation pneumonitis, acute gastritis, radiation hepatitis, and acute cholecystitis. **Contraindications:** SIR-Spheres Y-90 resin microspheres should not be implanted in patients who have either had previous external beam radiation therapy to the liver; ascites or are in clinical liver failure. This device is contraindicated in patients with markedly abnormal synthetic and excretory liver function tests; greater than 20% lung shunting of the hepatic artery blood flow, or >30 Gy radiation absorbed dose to the lungs, as determined by the 99mTc MAA scan; disseminated extra-hepatic malignant disease, and portal vein thrombosis. This device should not be implanted in patients determined via angiogram to have an abnormal vascular anatomy that would result in significant reflux of the hepatic arterial blood flow to the stomach, pancreas, or bowel. **General Information:** SIR-Spheres Y-90 resin microspheres may only be distributed to a duly licensed or accredited facility capable of handling therapeutic medical isotopes. This product is radioactive and should thus be handled in accordance with all applicable standards and regulations. **Consult the Instructions for Use (www.sirtex.com) for a complete listing of indications, contraindications, side effects, warnings, and precautions.**

# SIR-Spheres® yttrium-90 resin microspheres

## Patient Flow and Coding Reference



# SIR-Spheres® yttrium-90 resin microspheres

## Coding and Medicare National Average Reimbursement

### 2024 Office-Based Labs (OBL)

CY 2024 Medicare Physician Fee Schedule Final Rule was placed on display at the Federal Register on November 2, 2023. This Final Rule updates payment policies, payment rates, and other provisions for services furnished under the Medicare Physician Fee Schedule (PFS) on or after Jan. 1, 2024. Payment rates reflected in this guide are based on the 2024 Medicare Physician Fee Schedule as outlined in Addendum B using 2024 Final MPFS conversion factor 33.8872.

Coding for administration of SIR-Spheres yttrium-90 resin microspheres can be complex. There is no consensus or consistency in the Coding/billing for the administration of SIR-Spheres yttrium-90 resin microspheres. This coding guide provides SIR-Spheres yttrium-90 resin microspheres Pre-Treatment and Day of Treatment coding options. Payer policies should be reviewed for coverage and coding guidelines. All rates shown are 2024 Medicare national averages; actual rates will vary geographically and/or by individual facility.

#### FDA LABELED INDICATIONS FOR USE

**SIR-Spheres yttrium-90 resin microspheres: Colorectal cancer metastasized to the liver in combination with hepatic arterial chemotherapy (FUHR) – Full PMA approval**

#### Payment:

##### Centers for Medicare and Medicaid Services (CMS)

Place of Service (POS 11) - office location, military treatment facility, community health center, State or local public health clinic, or intermediate care facility (ICF), where the health professional routinely provides health examinations, diagnosis, and treatment of illness or injury on an ambulatory basis.

HCPCS	Descriptor	Medicare
Q3001	Radioelements for Brachytherapy, any type	Invoice Price

#### Medicare Overview and Coverage Policies:

Medicare patients have the option of enrolling in either traditional fee-for-service Medicare or Medicare Advantage plans. Traditional fee-for-service Medicare provides eligible beneficiaries with medical benefits through Medicare Parts A and B. Medicare Part B covers medically necessary services rendered in hospital outpatient facilities and freestanding physician offices. Medicare’s managed care option, or Medicare Advantage (MA), is also known as Medicare Part C. Commercial plans contract with the Medicare program to offer coverage to Medicare enrollees. Medicare Advantage plans must provide coverage that is equal to or greater than the coverage offered by the beneficiary’s local traditional fee-for-service Medicare Administrative Contractor (MAC). SIR-Spheres® Y-90 resin microspheres are eligible for Medicare reimbursement. Local Medicare contractors have the ability to approve or deny coverage based on medical necessity, coding, and appropriate procedural documentation.

### Commercial Payers:

Reimbursement for SIR-Spheres® yttrium-90 resin microspheres by private payers will depend upon the payer's coverage policy, medical necessity criteria and by your facilities contracted rates for individual plans. Commercial / Private Payer including Medicare Advantage plans insurance coverage varies between payers and their respective health plans. Coverage, coding, and reimbursement for SIR-Spheres Y-90 resin microspheres and related procedures should be confirmed with the payer to determine any applicable coverage policies or criteria prior to performing a procedure. Many national, regional, and local companies have determined SIR-Spheres Y-90 resin microspheres to be medically necessary. Pre-determination / prior authorization is recommended for most private insurance plans.

### State or Managed Medicaid:

Medicaid is a public insurance program funded jointly by federal and state governments that provides safety-net coverage mainly to low-income and disabled beneficiaries. Medicaid is run at the state level, and coverage and benefit requirements vary from state to state. States structure Medicaid as a fee-for-service program or contract with private companies that administer individual Medicaid managed care plans. Medicaid coverage for SIR-Spheres Y-90 resin microspheres and actual coverage amounts will vary by state and plan type (Managed Medicaid vs. State Medicaid). Most Managed Medicaid plans will determine reimbursement based upon the terms of the contracts with individual providers. You will need to contact your patient's state or Managed Medicaid plan to determine the actual reimbursement.

### Hospital Pre-determination Process / Prior Authorization:

Some commercial / private payer including Medicare Advantage plans, and State or Managed Medicaid plans may require providers to obtain a pre-determination or prior authorization for SIR-Spheres Y-90 resin microspheres coverage and related procedures. It is recommended that the coverage policies of your payer mix be researched and that applicable pre-determination requirements be understood PRIOR to treating the patient. Note: Obtaining a pre-determination / prior authorization is not a guarantee of coverage or payment. Coverage and payment determination can only be made at the time a claim is adjudicated.

### Medicare Place of Service Payment Methodology

Provider of Service	Place of Service Code	Medicare Payment Methodology
Office-Based Labs (OBL)	11	Invoice price for SIR-Spheres Y-90 resin microspheres

### ICD-10 Diagnosis Codes:

The following diagnosis code range is specific to colorectal cancer (SIR-Spheres® Y-90 resin microspheres is approved for colorectal cancer that has metastasized to the liver).

C18.0 – C18.9	Malignant neoplasm of colon
C19.0 – C20.0	Malignant neoplasm of rectum
C78.7	Secondary malignant neoplasm of liver and intrahepatic bile duct

### Microspheres Coding:

The HCPCS codes used to report use of SIR-Spheres Y-90 resin microspheres to payers may vary by plan type and the site of service where treatment is rendered. The following codes may be appropriate depending on payer guidelines:

HCPCS	Descriptor	Payers	
Q3001	Radioelements for Brachytherapy, any type	Fee for Service Medicare, some commercial / private payers including Medicare Advantage plans	Office-Based Labs (OBL) 11
S2095	Transcatheter occlusion or embolization for tumor destruction, percutaneous, any method, using yttrium-90 microspheres	some commercial / private payers including Fee for Service Medicare and Medicare Advantage plans	Office-Based Labs (OBL) 11

### Important Provider Notice:

National Correct Coding Initiative (NCCI) Edits may result in coding conflicts for various treatments and procedures. Providers should carefully review each quarter's NCCI edit updates.  
<http://www.cms.gov/NationalCorrectCodInitEd>

# Coding options for SIR-Spheres® yttrium-90 resin microspheres Therapy

## Medicare January 2024

		Non-Facility Payment <sup>6</sup>
CPT Code	CPT Description <sup>4</sup> (Short version)	Office-Based Lab (OBL) POS 11
<b>Phase I: Pre-Treatment Mapping / Diagnostic Angiogram<sup>7</sup></b>		
<b>Selective Catheterizations</b>		
36245	Selective catheter placement; initial first order	\$1,195
36246	Selective catheter placement; initial second order	\$805
36247	Selective catheter placement; initial third order or more	\$1,367
36248	Selective catheter placement; addl second order, third order and beyond	\$112
<b>Hepatic Angiogram</b>		
75726	Angiography, visceral, radiological S&I	\$167
75774	Angiography, selective, radiological S&I	\$95
<b>Arterial Embolization (if indicated)</b>		
37242	Arterial embolization or occlusion, inclusive of all radiological S&I; arterial other than hemorrhage or tumor	\$6,790
<b>Treatment Planning – AU (Authorized User) Work</b>		
<b>3-D Post-Processing (for liver volume)</b>		
76376	3D Post Scan, not requiring image post-processing	\$25
76377	Cone Beam CT	\$77
<b>CT Acquisition (may be billed in conjunction with CPT code 76377)</b>		
74170	CT abdomen; w & w/o contrast <b>OR</b>	\$264
74175	CTA abdomen & pelvis; w & w/o contrast	\$308
<b>Pre-Treatment Imaging (coding options will vary based on provider preference)</b>		
78201	Liver imaging, static	\$182
78801	Radiopharmaceutical localization Planar Imaging	\$245
78803	Radiopharmaceutical localization of tumor Single Area (SPECT)	\$341
78830	SPECT - CT Single Area	\$427
78831	Radiopharmaceutical localization of tumor >2 areas (SPECT)	\$639
78832	SPECT - CT >2 areas	\$807
78835	Radiopharmaceutical quantification measurement(s)	\$87
A9540 <sup>10</sup>	Technetium 99m macroaggregated albumin (MAA)	NA

This information is provided as a guide for coding services involving SIR-Spheres Y-90 resin microspheres administration and is not intended to increase or maximize reimbursement by any payer. We suggest consulting your third-party payer organizations with regard to local coverage, coding and reimbursement policies. **Providers assume full responsibility for all reimbursement decisions or actions.** Current Procedural Terminology © 2024 American Medical Association. All Rights Reserved. HEpra-US-002-02-24



# Coding options for SIR-Spheres® yttrium-90 resin microspheres Therapy

## Medicare January 2024

		Non-Facility Payment <sup>6</sup>
CPT Code	CPT Description <sup>4</sup> (Short version)	Office-Based Lab (OBL) POS 11
<b>Phase II: DAY OF TREATMENT (Administration / Implant)<sup>7</sup> continued</b>		
<b>Selective Catheterizations</b>		
36247	Selective catheter placement; initial third order or more	\$1,367
36248	Selective catheter placement; additional second order, third order and beyond	\$112
<b>Hepatic Angiogram</b>		
75726	Angiography, visceral, radiological S&I	\$167
75774	Angiography, selective, radiological S&I	\$95
<b>Tumor Embolization</b>		
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 radiological S&I; arterial other than hemorrhage or tumor	\$8,228
<b>Billing Sources for (yttrium-90 Microspheres – non stranded)</b>		
S2095	Transcatheter embo for tumor destruction using yttrium-90 microspheres	Private Payer Contract Price
Q3001	Brachytherapy Radioelements, any type	Carrier / Invoice Price
<b>Microspheres Administration: Authorized User Codes (AU)</b>		
79445	Radiopharmaceutical therapy, intra-arterial particulate admin (1 doctor model (IR/AU) <b>OR</b>	Contract Price
77778	Interstitial radiation source application; complex (2 Doctor model (IR with separate AU)	\$905
77263 <sup>7</sup>	Treatment Planning; complex	\$164
77370 <sup>8</sup>	Special Medical Radiation Physics Consultation	\$142
77470 <sup>9</sup>	Special Treatment Procedure	\$140
77300	Basic Dosimetry Calculation	\$65
77399	Unlisted procedure medical radiation physics, dosimetry (fusion)	Carrier Determined
<b>Post-Treatment Imaging (coding options will vary based on provider preference and equipment)</b>		
78201	Liver imaging, static	\$182
78801	Radiopharmaceutical localization Planar Imaging	\$245
78803	Radiopharmaceutical localization of tumor Single Area (SPECT)	\$341
78830	SPECT - CT Single Area	\$427
78814-26	Radiopharmaceutical localization of tumor by PET/CT	\$100
78831	Radiopharmaceutical localization of tumor >2 areas (SPECT)	\$639
78832	SPECT - CT >2 areas	\$807

This information is provided as a guide for coding services involving SIR-Spheres Y-90 resin microspheres administration and is not intended to increase or maximize reimbursement by any payer. We suggest consulting your third-party payer organizations with regard to local coverage, coding and reimbursement policies. **Providers assume full responsibility for all reimbursement decisions or actions.** Current Procedural Terminology © 2024 American Medical Association. All Rights Reserved. HEpra-US-002-02-24

## References

1. Gray et al. *Ann Oncol* 2001;12:1711–20
2. van Hazel et al. *J Surg Oncol* 2004;88:78–85
3. Hendlisz et al. *J Clin Oncol* 2010;28:3687–94
4. CPT Copyright 2023 American Medical Association. All rights reserved. CPT® is a registered trademark of the American Medical Association. Note: Some CPT descriptors have been shortened for purposes of brevity. See your CPT Guide for full descriptors and coding guidelines.
5. Physician “Non-Facility” payment refers to professional services provided in the Free Standing Facility (OBL). The codes and national average payment rates shown are reflective of the 2024 Medicare Physician Fee Schedule as outlined in the Calendar Year 2024, Addendum B using 2024 Final MPFS conversion factor 32.7442.
6. The possible coding options listed in this section are based on Medicare guidelines and society recommendations. Medicare base case coding scenarios typical for one mapping and one treatment.
7. Treatment planning should be billed and dictated separately prior to microspheres administration.
8. Special Medical Radiation Physics Consultation, use of this code requires a written order by the physician.
9. Special Treatment Procedure used for brachytherapy and in circumstances requiring extra work over and above basic dosimetry calculation: Patient with previous chemo, receiving concurrent chemo, or external beam radiation to the body/liver. AU must review current CT scan, liver function studies and ECOG performance status to determinate % yttrium-90 dose to be adjusted taking into account previous treatments. Often used as a re-treatment code. Should be supported by clinical treatment note.
10. Do NOT code CPT 79445 for the injection of TC99 MAA on the mapping day as this is considered part of the nuclear medicine exam.



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