Healthcare Administrative Partners

OPTIMIZING PROVIDER PERFORMANCE

Appendix B

Sample y-90 Operative Report for Interventional Radiologists with Coding Annotations

PROCEDURE: Hepatic angiogram, Yttrium 90 Radioembolization of liver tumor, closure device

CLINICAL HISTORY: Male with hepatocellular carcinoma (ICD C22.0)

TECHNIQUE:
Informed consent was obtained which included a discussion of possible complications which included but are not limited to gastrointestinal ulceration, radiation induced liver disease, radiation injury to the lungs, contrast reaction, arterial injury, and bleeding.

This patient was brought to the angiography suite and placed in supine position on the angiography table. IV moderate sedation was initiated by the M.D. followed by subsequent administration by the RN under the supervision of the M.D. performing the service. The care team monitored EKG, automatic blood pressure cuff measurements, and pulse oximetry throughout the procedure.

Sedation time: 50 minutes (99152, 99153 x 2)
Medications: 2 mg Versed IV, 100 mcg fentanyl IV

The right groin was thoroughly scrubbed, prepped and draped in usual sterile fashion. Maximal sterile barrier technique was utilized, cap, mask, sterile gown, sterile gloves, hand hygiene, and cutaneous antisepsis with 2% chlorhexidine. Sterile gel and sterile ultrasound probe cover was used. Ultrasound was used to identify and evaluate the patent right common femoral artery.

1% lidocaine was used to anesthetize the skin and soft tissues. Next, using ultrasound guidance, a single wall access needle was used to obtain access into the right common femoral artery with ultrasound documentation of intraluminal needle tip position. Permanent ultrasound images documenting vessel patency and intraluminal needle tip position were acquired and stored in the PACS system (+76937). Access was upsized to accept a 5 French vascular sheath.

A 5 F SOS 2 catheter was positioned into the celiac artery, contrast injected and digital subtraction arteriography (DSA) performed (75726-59 or XU). Two 2.8 French microcatheters were serially advanced coaxially into the right hepatic artery (36247) and DSA was performed showing the hypervascular masses in the right lobe (75774-59 or XU). Split dose injection was then performed into the right hepatic artery.

The y-90 microspheres acrylic delivery boxes and delivery set were prepared in standard fashion. The labels on the tubing and needles correspond to the manufacturer's designations. The Authorized User, Dr. X from the Division of Interventional Radiology, infused aliquots of y-90 microspheres intra-arterially to the hepatic masses (37243, 79445) after confirming appropriate positioning of the microcatheters. A follow up angiogram demonstrated persistent forward flow.

The dose of y-90 microspheres to be delivered was determined by Dr. X, Authorized User, taking into account the perfused liver volume, lung shunting, tumor burden, liver function tests, previous therapy, and performance status. The total dose delivered was 77.0 mCi to the right lobe.

The microcatheter and SOS catheter were then removed from the sheath and the microcatheter tip grasped with multiple layers of sterile gauze. The catheter, microcatheter, V-Vial and all of the tubing and needles associated with the delivery set were placed into the container provided by Radiation Safety.

All catheters and wires were removed. The sheath was removed and the arteriotomy was closed with a Mynx device. Hemostasis was achieved using manual compression. The patient was transported to Nuclear Medicine for a Bremsstrahlung scan. The patient tolerated the procedure well and left the department in satisfactory condition. There were no immediate complications.

All of the operators' gloves, gowns and shoe covers, as well as the patient drapes and disposable floor coverings were surveyed for radioactivity by Radiation Safety and disposed of as instructed by Radiation Safety. Radioactivity remaining in the delivery set, catheters and V-Vial was measured by Radiation Safety personnel.

FINDINGS:
Celiac arteriography demonstrates conventional hepatic arterial anatomy. The segment 4 branch arises from the left hepatic artery. There is multifocal tumor blush in the right lobe. After radioembolization, there remained persistent antegrade flow.

Fluoroscopy time: 5.2 minutes, 316 images
Exposure: 1079 mGy

IMPRESSION:
Successful split dose Yttrium-90 Radioembolization of the right hepatic lobe for treatment of multifocal tumor. The dose delivered was 77.0 mCi to the right lobe.

SUMMARY OF CODES BILLED FROM THIS PROCEDURE			
CPT Code	**Description**	**Medicare Fee[1]**	**Comment**
99152	Moderate sedation, first 15 min.	$12.83	Billed once
99153	Moderate sedation, each added 15 min.	$10.83	Billed twice
76937	Ultrasound guided vascular access	$14.80	
75726	Arteriography, abdominal	$100.33	Add modifier. [2]
36247	Catheter insertion	$315.78	
75774	Arteriography, vessel	$49.80	Add modifier. [2]
37243	Vascular embolization	$588.26	
79445	Administration of radiopharmaceutical	$116.93	Billed if the IR is the AU

[1] 2020 Medicare National Payment Amount for physician professional services (modifier -26, where applicable) performed in a facility setting.

[2] Modifier -59 is used for most commercial payers, defined as a "Distinct Procedural Service". Modifier -XU is used for Medicare claims, and it is defined as a "Unusual Non-Overlapping Service. The use of a service that is distinct because it does not overlap usual components of the main service". A more detailed explanation of these modifiers is available.