

Backgrounder: Facts and Figures

TheraSphere® and Primary Liver Cancer

Facts

- TheraSphere®* Yttrium-90 microspheres is an outpatient radiation therapy treatment that consists of millions of tiny glass microspheres that contain yttrium-90.
- TheraSphere treats inoperable primary liver cancer.
- The treatment is administered using a catheter to inject the tiny radioactive microspheres into the hepatic artery that supplies blood to the liver and deliver a therapeutic dose of radiation directly to the tumour from within the body.
- Following the TheraSphere treatment, patients rarely experience the fatigue, nausea and vomiting usually associated with high-dose, systemic chemotherapy.
- Primary liver cancer originates in the liver. Hepatocellular carcinoma (HCC) is the most common form of primary cancer of the liver, representing 80-90% of primary liver malignancies worldwide.
- The causes of HCC include hepatitis B or C, cirrhosis of the liver, chronic hepatitis, long-term blockage of the outflow of bile from the liver and some viral forms of autoimmune liver disease.
- The number of liver cancers diagnosed in the United States is increasing and will continue to rise over the next few decades due in large part to the increased number of Americans who are chronically infected with hepatitis B and hepatitis C.
- TheraSphere is available commercially in the United States as a humanitarian device for the treatment of unresectable HCC or as a bridge to surgery or liver transplant. It is the only medical device approved in the U.S. to treat primary liver cancer patients with portal vein thrombosis (PVT).
- MDS Nordion, a world leader in medical isotopes, radiation and related technologies, is the manufacturer and supplier of TheraSphere. www.mdsnordion.com

Figures

- The World Health Organization estimates that about 170 million people, 3% of the world's population, are infected with the hepatitis C virus and are at risk of developing liver cirrhosis and/or liver cancer.
- According to the American Cancer Society, in 2007 there will be 19,150 new cases of primary liver cancers diagnosed in the United States, including HCC. Over 16,000 people will die from these cancers in the United States and the numbers are expected to grow.
- According to the American Liver Foundation more than four million Americans have been infected with hepatitis C and it is responsible for 8,000-10,000 deaths annually.
- Hepatitis C leads to HCC in 1-4% of cases.
- Over 80 % of all liver cancer cases have been linked to cirrhosis, a build up of scar tissue in the liver.
- To date, more than 2,000 patients have received TheraSphere treatments in the United States.
- Each dose of TheraSphere consists of anywhere from 1.2 to 8 million microspheres.
- TheraSphere microspheres are about one-half the diameter of a human hair, or 20 to 30 microns in diameter.



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For more information, please visit: www.therasphere.com.

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