

Better therapy acceptance through interstitial pressure for better objective response.





Surefire's influsion systems are designed to precisely deliver embolic agents through a unique microcatheter with an expandable tip that collapses in forward flow and dynamically expands to the vessel wall in reverter flow in order to increase targeted delivery, minimize settly and ready defined and the collapse of t



### Case Study

Surefire increases tumor uptake; decreases nontarget embolization

Clinical trial comparing the Surefine Infusion System to an end hole catheter finds Surefine increases turn uptake and decreases non-target



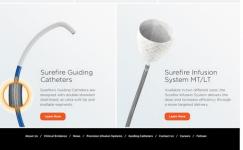
### Clinical Study

High dose radiation lobectomy of primary liver cancer with 2 year follow up

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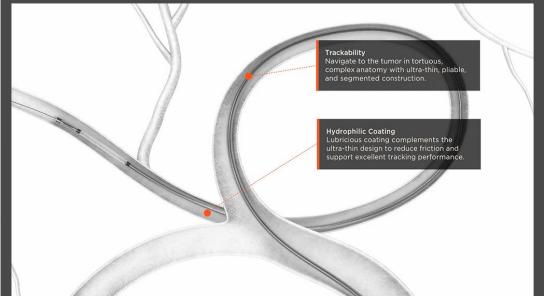


Surefire Precision Infusion Systems

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**Discover Precision** 

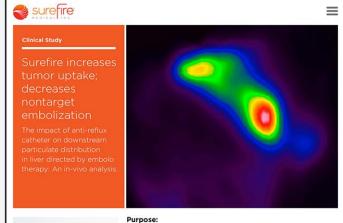




Improved Uptake
The Surefire Precision Infusion System
achieves a 68% increase in tumor uptake
compared to a standard endhole catheter.<sup>1</sup>

The combined efficiency of the expandable tip and optimized pressure environment creates a new therapy dynamic.

Unparalleled Protection
The System is clinically proven to reduce particles to healthy tissue by 58%.<sup>2</sup>



# A number of devices and techniques have been devised to minimize non-target embolization (NTE)

A number of devices and techniques have been devised to minimize non-target embolization (NTE) during liver directed yttrium-90 (90Y) therapy with resin microspheres. Anti-reflux catheters are one such example that have been recently shown to alter infused microsphere distribution in a preclinical renal model. We present the first in-vivo direct comparison of microparticle distribution using standard end-hole and anti-reflux catheters employing a novel dual infusion of 99mTc -microaggregated albumin (MAA).

## Materials:

This study was conducted with informed consent and IRB approval. Two same day sequential lobar infusions of 99mTc-MAA, 100MBg and 600MBg respectively, were administered using a transfemoral approach. With near-identical techniques and catheter positions, a Surefire antireflux catheter was used first for the first 5 patients followed by an end-hole catheter. The sequence was reversed for the next 2 patients for a total of 7 patients. Differences in 99mTcMAA distributions within tumor and non-target sites were evaluated via SPECT imaging on a qualitative and semi-quantitative basis using paired t-tests.



