



# SPY Fluorescence

## Imaging Technology

### Changing the Way You See Your Patients

The 1688 Advanced Imaging Modalities (AIM) 4K platform and SPY-PHI utilize SPY Fluorescence Imaging Technology to assist surgeons in the visual assessment of tissue perfusion.

#### Brilliant Visualization

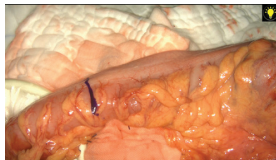
Native fluorescence 4k is designed to provide realistic color reproduction and results in a sharp, highly detailed image

#### Intuitive Functionality

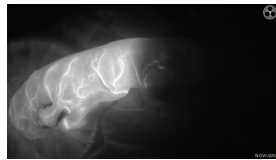
Customizable camera head button mapping for simple SPY mode toggling

#### Multiple Visualization Modes

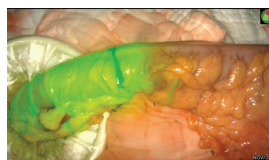
Combines enhanced fluorescence signal information to enable different viewing modes for use across multiple specialties



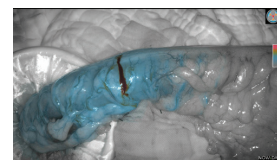
White Light Mode



Contrast Fluorescence Mode



Overlay Fluorescence Mode



Color Segmented Fluorescence Mode

SPY-PHI Images from a sigmoid and rectum LAR

#### A Single Institution's Experience

In a retrospective study from 2015-2016, 347 patients were analyzed for anastomotic leaks before and after the introduction of SPY fluorescence technology.

**0.84%**

Anastomotic leak rate when using SPY fluorescence imaging (n=2 of 238 patients)<sup>1</sup>

**5.5%**

Anastomotic leak rate without use of SPY fluorescence imaging (n=6 of 109 patients)<sup>1</sup>

See more. **Do more.**

# Visualizing Tissue Perfusion in Colorectal Surgery



## Clinical Impact

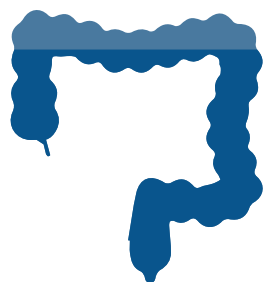
In a prospective, multi-center study that analyzed 139 patients who underwent LAR using SPY fluorescence technology:

- There were 2 (1.4%) anastomotic leaks reported in the trial.
- SPY fluorescence technology changed the surgical plan in 11 (7.9%) patients – no anastomotic leaks were found in the 11 patients.<sup>2</sup>

## Economic Impact

During a single institution's trial to justify capital costs, Starker et al. found:

- The average post-operative costs associated with major colon resection surgery were \$16,086 for non-SPY fluorescence users. Versus \$14,745 for SPY fluorescence users.
- With the cost of ICG dye factored, results showed an average cost savings of \$1,216 per patient.<sup>1</sup>



# \$38,627

Average reported cost per patient for a small and/or large bowel complication<sup>3</sup>

#### References:

1. Starker, PM & Chinn, B. Using outcomes data to justify instituting new technology: a single institution's experience. *Surgical Endoscopy*. 2017. <https://doi.org/10.1007/s00464-017-6001-3>
2. Jafari MD, et al. Perfusion Assessment in Laparoscopic Left-Sided/Anterior Resection (PILLAR II): A Multi-Institutional Study. *Journal of the American College of Surgeons*. 2015; 220(1):82-92
3. Major Small and Large Bowel volume originates from 2017 Medicare cost reports using Inpatient (DRG 529-531 reported in conjunction with the Specific ICD 10 CM code(s) used to identify complications.