PINPOINT
Endoscopic Fluorescence Imaging System
Illumination beyond the limits of the human eye
Committed to improving outcomes through innovation and collaboration

NOVADAQ technologies enable surgeons to go beyond the visual boundaries of the human eye. With an emphasis on innovation and collaboration with the medical community, NOVADAQ provides clinically relevant technologies that assist physicians in achieving improved patient outcomes and decreased healthcare costs.

The PINPOINT Endoscopic Fluorescence Imaging System combines — into a single laparoscopic platform — the latest in high-definition white-light video with SPY Fluorescence Imaging, resulting in bright, clear images that evolve a surgeon’s operating room experience.

Including the world’s first and only 10mm combined HD white light and HD fluorescence laparoscopes that empower the surgeon to make targeted decisions intra-operatively.
SPY Fluorescence is the core technology that drives NOVADAQ’s suite of imaging products. PINPOINT is the only laparoscopic imaging system offering simultaneous real-time true HD white light and on-demand HD fluorescence imaging through a single laparoscope. This enables surgeons to visualize tissue perfusion and anatomical structures during multiple minimally invasive procedures. The fluorescent imaging agent binds to protein in blood and is metabolized and excreted by the liver thereby providing laparoscopic visualization of the hepatic artery and bile ducts.

In colorectal, esophageal and bariatric surgery, SPY Fluorescence enables a precise visual assessment of blood flow in vessels as well as the quality of tissue perfusion. In laparoscopic cholecystectomy, bile duct misidentification and hepatic artery injury with white-light endoscopy alone is most commonly associated with early experience, aberrant anatomy and obesity. Intra-operative fluorescence cholangiography may be used to navigate vessels and structures, avoiding injury during minimally invasive surgery.
The PINPOINT Endoscopic Fluorescence Imaging System provides surgeons with actionable, real-time visualization of tissue perfusion and structural anatomy during a variety of surgical procedures. This capability is a result of three additional fluorescence display modes that go beyond HD white-light video alone: PINPOINT Fluorescence Mode, SPY Fluorescence Mode and SPY Color Segmented Fluorescence Mode illuminate anatomical structures and tissue perfusion in a manner otherwise not visible by the human eye.

**Brilliant HD White-Light Image**
- Full HD resolution delivers bright, clear images

**Illuminated by SPY Fluorescence**
- Fluorescence imaging modes may assist surgeons with critical decisions during surgery

**Operating Room Versatility**
- Enhanced control allows surgeons to select optimal display modes for each specialty
- Connectivity to a variety of digital devices and networks provides greater flexibility in the operating room

The complete laparoscopic solution for your surgical needs

- 26” HD-LED Medical-Grade Display
- PINPOINT Camera
- 0° PINPOINT Fluorescence Laparoscope
- 30° PINPOINT Fluorescence Laparoscope
- 45° PINPOINT HD White-Light Laparoscope
- PINPOINT 50L CO₂ Insufflator
- Video Processor Illuminator (VPI)
- High-Definition Video Recorder
- Image Printer

HD White-Light  |  SPY Fluorescence  |  PINPOINT Fluorescence  |  SPY CSF
One technology, multiple minimally invasive applications

PINPOINT offers brilliant, high-definition, white-light video with the added advantage of SPY Fluorescence imaging technology, which has been demonstrated as beneficial in a variety of surgical applications.

### Colon Resection
Assessing tissue perfusion assists surgeons in making informed decisions that can positively impact outcomes.

**Left:** Distal colon prior to anastomosis

### Laparoscopic Cholecystectomy
Identifying vital biliary anatomy, including the critical view of safety, may be easier in SPY Fluorescence or PINPOINT Fluorescence mode.

**Left:** Triangle of Calot

### Minimally Invasive Esophagectomy
Visualizing micro-vascular blood flow of the distal esophagus and proximal gastric conduit may assist surgeons in improving patient outcomes.

**Left:** Distal esophagus and proximal gastric conduit post-anastomosis

### Bariatric Surgery
Targeting tissue perfusion and blood flow in gastric sleeves, gastric bypass and revisional bariatric surgery may assist surgeons in making critical intra-operative decisions.

**Left:** Perfusion assessment prior to plication of stomach
Dedicated to improving outcomes

Published literature has long confirmed the significant social and economic burden associated with post-operative complications. More than 100 peer reviewed medical journals have demonstrated an improvement in patient outcomes and a reduction in hospital costs as a result of SPY Fluorescence technology. NOVADAQ’s suite of imaging products, including PINPOINT, uphold a strong track record of assisting surgeons in making critical decisions that may reduce the occurrence of costly complications.

PILLAR II Study Results

139 Patients

1.4% of Low Anterior Resections resulted in an anastomotic leak when using PINPOINT

8% change in operative plan due to PINPOINT, resulting in a 0% anastomotic leak rate among those patients


Low Anterior Resection Anastomotic Leak Rate

12.6% of Low Anterior Resections resulted in an anastomotic leak, as shown by the BSLR study


Cost of Colorectal Surgery by Complication Grade

Complication grades as described by the Clavien-Dindo classification.

90% of colorectal surgery complications are grade II or higher

$26,420
Without complication

$29,166
Grade I

$43,370
Grade II

$59,822
Grade IIa

$95,550
Grade IIb

Indications For Use
The PINPOINT Endoscopic Fluorescence Imaging System is intended to provide real-time endoscopic visible and near-infrared fluorescence imaging. PINPOINT enables surgeons to perform routine visible light endoscopic procedures as well as further visually assess vessels, blood flow and related tissue perfusion with near-infrared imaging during minimally invasive surgery.