LUNA
Fluorescence Microangiography
Illumination beyond the limits of the human eye
Adequate perfusion is critical to successful wound healing

Perfusion is an important indicator of tissue health. In order to survive, all cells need a constant supply of blood to deliver oxygen and nutrients and to remove waste. Even a few hours of impaired perfusion can cause irreversible damage to tissues.

At present, the most common and reliable method for perfusion assessment in the wound clinic is clinical judgment. Since white light does not penetrate tissues to the extent at which light used by LUNA can, the human eye is limited in what it can see. Despite excellent techniques, perfusion assessment of chronic and acute wounds remains an inexact science.

Committed to improving outcomes through innovation and collaboration

NOVADAQ technologies enable physicians 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.

LUNA fluorescence microangiography provides clinicians with a reliable and comprehensive visual and quantitative assessment of tissue perfusion in the wound-care setting.
LUNA fluorescence microangiography provides wound care clinicians with a real-time, visual and quantitative assessment of wound microcirculation to help guide treatment decisions in patients with acute and chronic wounds. Its specific advantages include:

- Providing a more comprehensive assessment of tissue perfusion than any other available technology
- Assisting physicians in quantifying the impact of various wound-healing techniques over time on the quality of tissue perfusion
- Assisting physicians in defining the optimal care pathway to maximize limb salvage

SPY Fluorescence is the core technology that drives NOVADAQ’s suite of imaging products. More than 85 peer-reviewed medical journals have demonstrated an improvement in outcomes and a reduction in hospital costs as a direct result of SPY Fluorescence.
Real-time fluorescence angiography in action

Assessing Compromised Perfusion in Left Foot

Clinical Considerations

TCOM readings on this patient were borderline on both room air and with an oxygen challenge, so a clear plan for treatment was difficult to determine. In an effort to avoid further x-ray angiography, the physician used LUNA angiography to evaluate the extent of compromised perfusion to the patient’s foot.

Imaging Interpretation

Based on visual inspection, the middle three toes of the left foot looked relatively well perfused. LUNA imaging, however, clearly indicated otherwise.

Case Study: Limb Salvage and Optimizing Amputation Levels

History

This case example illustrates how LUNA can aid physicians in optimizing limb salvage and amputation levels. From pre to post tibial bypass, there is a marked improvement in perfusion noted to the 3rd and 5th digits of the right foot. This information helped the physician salvage as much tissue as possible, and perform the least invasive amputation procedure.
Case Study: Chronic Wound Progression

History

This case example illustrates the typical progression of a chronic, non-healing wound undergoing treatment at a wound care center. In this particular case, HBOT was used to help drive the wound back to baseline. The ingress rate decreases significantly over time, signifying positive response to the treatment:

Baseline sequence of wound prior to treatment
(Ingress rate = 33.7)

Post-HBOT #10
(Ingress rate = 19.3)

Post-wound closure
(Ingress rate = 1.5)

Case Study: Acute Wound

History

This case example illustrates the progression of an acute wound undergoing treatment at a wound care center. In this particular case, the hyperfluorescence surrounding the wound was less pronounced (than what would be seen in chronic wounds), while the level of ischemia within the wound was more significant. Over time, the interior of the wound sees a marked increase in perfusion, while the degree of hyperfluorescence surrounding the wound decreases as expected.

Baseline sequence of wound prior to treatment

Follow-up sequence
Increase patient traffic through marketing

Through the LUNA Marketing Assistance Program, NOVADAQ offers a range of marketing support materials, empowering wound-care clinics to promote their use of the LUNA system to the surrounding population.

- Proven to increase patient traffic and overall revenues
- Competitive differentiation
- Position clinic as a technology leader with a clear focus on limb salvage

Dedicated to improving outcomes

Medicare, along with over 1,000 hospitals in the United States, have recognized the value of SPY Fluorescence technology. Medicare has established a HCPCS code that provides $341.28 (Medicare) in reimbursement for each LUNA study. Additionally, there are a range of CPT codes that offers reimbursement to clinicians. Speak to your NOVADAQ representative for more information on LUNA reimbursement.

Limit exposure to ionizing radiation that is produced by most imaging technologies. LUNA uses a low-powered light source that emits zero ionizing radiation, and a fluorescence agent with a strong safety record of more than 50 years.

SPY-Q provides physicians with a suite of tools to objectively analyze tissue perfusion in real-time. These advanced analytics may assist surgeons in determining a customized treatment tailored to individual patients.

Safe and easy to use

Multi-Directional Imaging Arm
SPY Fluorescence Imaging Head
Dual LCD Monitors
High-Definition Color Printer
Mobile Cart with Wheel-Locks

Multi-directional imaging arm allows the SPY Fluorescence Imaging Head to be positioned into virtually any desired angle.

Mobile cart can be easily wheeled from room to room.
Indications For Use

The LUNA System is intended to provide fluorescent images for the visual assessment of blood flow in vessels and related tissue perfusion during cardiovascular surgical procedures. Examples of its use in cardiovascular applications include confirming blood flow through the peripheral vasculature and extremities.