

Point of Care Identification of *Pseudomonas aeruginosa* with the MolecuLight *i:X*[™] Led to Targeted Treatment and Wound Healing



Practitioner

Rosemary Hill, BSN, CWOCN, CETN(C),

with over 12 years of wound care experience, oversees wound care for inpatients and outpatients at Lions Gate Hospital, Vancouver Coastal Health, located in North Vancouver, Canada. Rosemary is currently President of the Canadian Association for Enterostomal Therapy (CAET).



Patient Condition

74-year-old female with a venous leg ulcer for longer than 5 months and confirmed hemangioma. Patient had previously received multiple courses of oral antibiotics, with minimal effect on wound progression, prior to her referral to the wound specialty team at Lions Gate Hospital, Vancouver Coastal Health for stalled wound healing.

References:

1. Serra R et al. Expert Rev Anti Infect Ther 2015; 13(5):605-13.
2. Schmidtchen A et al. Acta Derm Venereol 2001; 81(6): 406-9.
3. World Union of Wound Healing Societies. Principles of best practice: Wound exudate and the role of dressings. A consensus document, 2007.

US FDA De Novo approval pending - the MolecuLight *i:X*[™] Imaging Device is not available in the US.



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LOOK TO HEAL[™]

Pseudomonas aeruginosa is one of the most common pathogens found in chronic leg ulcers.¹ It frequently leads to stalled wound healing and its unique intrinsic and acquired antibiotic resistances make early identification and selection of *Pseudomonas*-specific treatment regimes critical in wound care.¹⁻² *P. aeruginosa* sometimes presents with clinical symptoms, including a malodorous, greenish crust and a greenish tinge on removed dressings,³ but frequently no specific signs and symptoms are observed.³ This bacterial species uniquely fluoresces a cyan color on MolecuLight *i:X* fluorescence images, enabling immediate species identification.

This patient's stalled wound exhibited no clinical signs and symptoms specific to *Pseudomonas aeruginosa* colonization, yet real-time visualization of cyan fluorescence on MolecuLight *i:X* images (Figure 2) strongly suggested *P. aeruginosa*. Obtaining this information at the point of care led the clinician to immediately select an antimicrobial dressing indicated for use against *P. aeruginosa*. Swabs taken from regions of cyan fluorescence under MolecuLight *i:X* fluorescence guidance later confirmed moderate growth of *P. aeruginosa*.



Figure 1: ST-image.™ Image taken under standard lighting conditions.

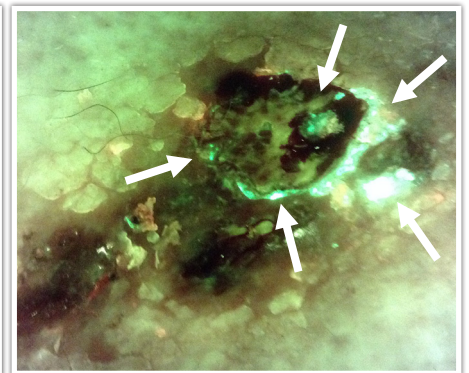


Figure 2: FL-image.™ Image taken with MolecuLight *i:X* in Fluorescence Imaging Mode.™. Arrows indicate regions of cyan fluorescence. Swabs of cyan regions later confirmed to be moderate growth of *P. aeruginosa*.

At the next visit, cyan fluorescence was no longer detected, confirming the effectiveness of the chosen antimicrobial treatment and that there was no need for systemic antibiotics. With this effective eradication of *P. aeruginosa* contamination, the wound began to heal within three weeks.

MolecuLight *i:X*[™] Wound Intelligence Device

The MolecuLight *i:X* allows clinicians to quickly, safely and easily visualize bacteria and measure wounds at the point of care so they have maximum insights for accurate treatment and accelerated healing.

Testimonial

"I would not have suspected Pseudomonas on this wound. Both the Infectious Disease physician and myself were surprised when the i:X images showed clear presence of the cyan color, which influenced my clinical practice."

— Rosemary Hill, BSN, CWOCN, CETN(C)

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