

## Use of the MolecuLight *i:X*<sup>TM</sup> Helped Avoid Costs (£3500) of a Possible Failed Graft Procedure

47-year-old male patient required a right above knee amputation after severe burns. The stump later became infected, therefore was evacuated, washed out and left open with a plan for subsequent delayed closure.

One week later, clinical assessment suggested the wound was granulating well and had no current contraindications for grafting (e.g. bacterial contamination). The patient was deemed ready for operating theatre for limb closure with a graft.

However, MolecuLight *i:X* fluorescence images taken prior to theatre revealed bacterial burden in the lower edge of the wound. Probing of this area revealed the presence of pus, which was later confirmed to be *E. coli* and *P. mirabilis*.

Based on this information, the clinician decided to delay the skin graft operation, which would not have been successful if pursued.<sup>1,2</sup>



### Practitioner

Lt Col Steven Jeffery, RAMC, is a consultant plastic surgeon for the Royal Centre for Defence Medicine at the Queen Elizabeth Hospital in Birmingham, UK as well as a consultant in burn surgery at the Birmingham Children's Hospital. Dr. Jeffery is a member of the British Burns Association and lectures frequently on both traumatic injuries incurred by British Forces and pediatric burns.



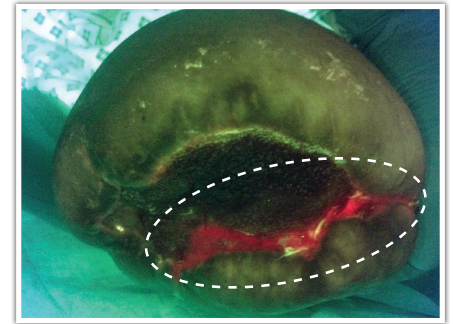
### Patient Condition

47-year-old male required an above knee amputation following a traumatic burn injury. Patient reported severe pain and developed an abscess ~6 weeks post-amputation.

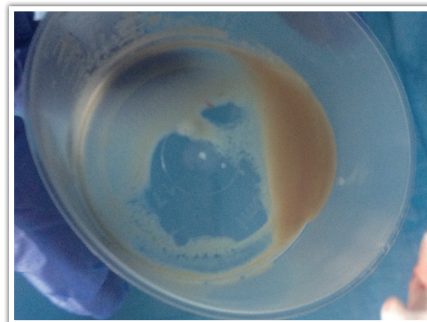
The MolecuLight *i:X*<sup>TM</sup> Imaging Device is not available in the US.



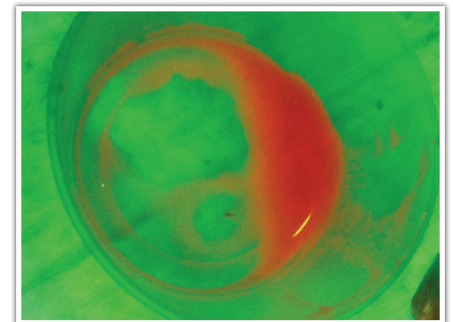
**Figure 1:** Standard Imaging Mode<sup>TM</sup>  
Wound before limb closure.



**Figure 2:** Fluorescence Imaging Mode<sup>TM</sup>  
Presence of bacteria indicated by red color.



**Figure 3:** Standard Imaging Mode<sup>TM</sup>  
Pus drained from wound.



**Figure 4:** Fluorescence Imaging Mode<sup>TM</sup>  
Red fluorescing pus. Presence of bacteria indicated by red color.

### Potential Cost Savings (estimated in £)<sup>1</sup>

Operating Theatre and Staff (1 Hour)	£1500 <sup>2</sup>
Five Day Hospital Stay	£400/day = £2000
<b>Total Estimated Cost Savings</b>	<b>£3500</b>

In this particular patient, MolecuLight *i:X* images prevented an unnecessary surgery and saved the hospital approximately £3500 (£4000 Euro/\$5300 CAD). This figure does not include the additional health care costs of treating a failed infected skin graft, which would almost certainly have developed in this stump had a graft been performed.

## MolecuLight *i:X*<sup>™</sup> Wound Intelligence Device

The MolecuLight *i:X* allows clinicians to quickly, safely and easily visualize bacteria<sup>3</sup> and measure wounds<sup>4</sup> at the point of care so they have maximum insights for accurate treatment selection and accelerated healing.<sup>3</sup>


### Testimonial

“ I was ready to perform skin graft surgery on this patient. The wound looked clean and appeared to be a good candidate for skin grafting. The MolecuLight *i:X* completely changed my decision making and resulted in not only time and cost savings but also an improved patient outcome. ”

— Lt Col Steven Jeffery, RAMC

View MolecuLight *i:X*<sup>™</sup> in action.  
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#### References:

Images provided by Lt Col Steven Jeffery, The Royal Centre for Defence Medicine, Birmingham, UK  
MolecuLight Clinical Case 0014b

1. Communication with Lt Col Steven Jeffery.
2. Ang WW *et al.* The cost of trauma operating theatre inefficiency. *Ann Med Surg* (London). 2016 May; 7: 24–29.
3. DaCosta, R.S. *et al.* Point-of-care autofluorescence imaging for real-time sampling and treatment guidance of bioburden in chronic wounds: first-in-human results. *PLoS One*. 2015 Mar 19;10(3).
4. MolecuLight Inc. Case Study 0051 Track Wound Size and Bacterial Presence with the MolecuLight *i:X*. 2016.

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The MolecuLight *i:X*<sup>™</sup> Imaging Device is approved by Health Canada (Medical License #95784) and has CE marking (Certificate #G1160292355002) for sale in Canada and the European Union. The MolecuLight *i:X*<sup>™</sup> Imaging Device is not available in the US.

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Bacteria appear red in image