

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

This 47-year-old male patient required an above knee amputation of his right leg after a severe burn. The stump later became infected, was evacuated, washed out and left open. An subsequent delayed closure was planned.

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 scheduled for a skin graft to close the wound.

However, MolecuLight *i:X* fluorescence images taken prior to the operation detected bacteria ( $>10^4$  CFU/g) in the wound. Probing of this area revealed the presence of pus, which was later confirmed to contain *E. coli* and *P. mirabilis*.

Based on this information, the clinician decided to delay the skin graft operation, which likely 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.

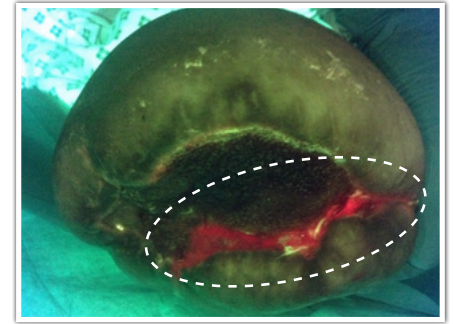


### Patient Condition

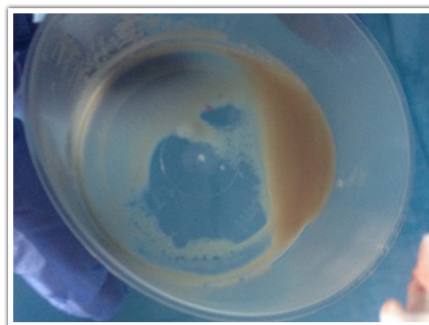
47-year-old male required an above knee amputation following a traumatic burn injury. Patient reported severe pain and developed an abscess ~6 weeks post-amputation.



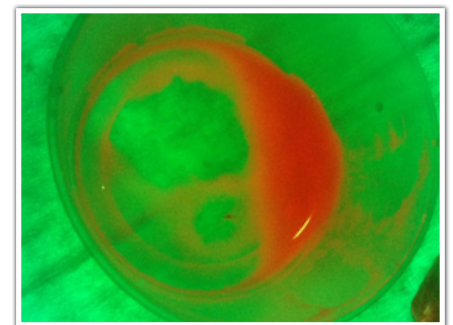
**Figure 1:** Standard Image. Wound before limb closure.



**Figure 2:** Fluorescence Image. Red color indicates bacteria ( $>10^4$  CFU/g).



**Figure 3:** Standard Image. Pus drained from wound.



**Figure 4:** Fluorescence Image. Red color of the pus indicates bacteria ( $>10^4$  CFU/g).

### 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* fluorescence 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>

The MolecuLight *i:X* allows clinicians to quickly, safely and easily identify wounds with bacteria<sup>3-6</sup> (at loads of  $>10^4$  CFU/g, in combination with CSS) and measure wounds<sup>4,6</sup> at the point of care to provide them with valuable information to inform treatment and monitor progress<sup>5,6</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

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#### References:

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

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The MolecuLight<sup>®</sup> *i:X* Imaging Device is approved by Health Canada for sale in Canada and has CE marking for sale in the European Union. The MolecuLight<sup>®</sup> *i:X* Imaging Device has received FDA clearance.

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Red colour in this image indicates bacteria ( $>10^4$  CFU/g)<sup>3,4</sup>.