5th International Conference on
Advances in Skin, Wound Care and Tissue Science

&

14th International Conference on **Clinical Dermatology**

October 15-16, 2018   Rome, Italy

Steven Jeffery

Queen Elizabeth Hospital, UK

Two years with MolecuLight i: X – two years of better patient outcomes

Statement of the Problem: Damage to skin and soft tissue allows opportunistic pathogens to complicate and impede the normal course of wound healing and skin repair1. The diagnosis of microbial infection in a wound, based on common clinical signs and symptoms is difficult, as there is no gold standard to predict bacterial activity in tissue and bacteria are invisible to the unaided eye. Furthermore, application of gold standard therapies such as debridement to remove bacterial load and selection of appropriate dressing to minimize further burden are currently sub-optimal. Fluorescence imaging has recently been used to visualize clinically significant levels of pathogenic bacteria in real-time at the bedside using a non-contact hand held device.

Methodology & Theoretical Orientation: Over the course of two years we have assessed the effectiveness of this device in the detection and management of bacterial load in patients with resulting from military combat, traumatic burns, and amputations.

Findings: 1 - Bacteria is heterogeneously distributed across a wound, leading to suboptimal swabbing according to clinical signs and symptoms. 2 - Early diagnosis of high bacterial burden allows for appropriate treatment to begin immediately. 3 - Most wounds do not contain large numbers of bacteria, meaning that antimicrobial dressings are being over used.

Conclusion & Significance: Bacterial fluorescence imaging informs clinical decisions with immediate information on bacterial presence or absence, identification of the type of bacteria to be treated (specific detection of P. aeruginosa), visualizing the location of bacterial presence for more accurate swabbing, targeting areas for debridement and re-debridement, antimicrobial and antibiotic decision making, and monitoring of treatment effectiveness. This tool has significant implications for improving overall wound healing, as early detection and intervention of bacterial presence could prevent bacterial levels from reaching critical colonization, infection, and sepsis.

Biography

Jeffery is a Consultant Burns and Plastic Surgeon at the Royal Centre for Defence Medicine in Birmingham, and is Professor of Wound Study at Birmingham City University He joined the Royal Army Medical Corps as a medical student in 1986. He qualified from the Universities of St Andrews and Manchester in 1989, and served as a Medical Officer with the Argyll and Sutherland Highlanders before completing his basic surgical training, becoming a Fellow of the Royal College of Surgeons of Edinburgh and of Glasgow. He developed an interest in burns and other soft tissue injuries, and soon realised that the best way to pursue this interest would be via plastic surgery. He completed his plastic surgical training in East Grinstead, Newcastle and Perth. He is a Patron of the Restoration of Appearance and Function Trust Charity, and has been awarded Fellowship of the Royal College of Surgeons of England ad eundum. He is an expert adviser to NICE Medical Technologies Evaluation Programme. In 2011 he co-founded the Woundcare 4 Heroes charity, which is already making a big difference to the wound care of both serving and veteran personnel.

sjeffery@nhs.net

Clinical Pediatric Dermatology
ISSN: 2472-0143

Wound Congress 2018 &
Clinical Dermatology Congress 2018
October 15-16, 2018

Volume 4

Page 16