

Myth or Reality in the Treatment of Chronic Wounds

Wednesday May 25, 2011 | 15:30 – 16:30 | Hall 400

SQUARE – Brussels Meeting Centre, Brussels

Program

Chairman: Luc T ot

Introduction

Luc T ot

Past, present and future of Wound Bed Preparation

Gerit Mulder

New challenges in chronic wound dressings

Sylvie Meaume

Ask the Experts Panel Discussion

Millions of people around the world suffer from chronic wounds. Such patients have to come to terms with months of pain and reduced quality of life and the need for long-term care and treatment. Chronic wound patients and their caregivers would like nothing more than fast, lasting healing.

Successful treatment depends on the hygienic state of the wound, wound bed preparation, choice of wound dressings, the therapist's experience and last but not least, the patient's condition.

Wound coatings, bacterial biofilms, pus, necrotic tissue, detritus and in particular, the bacterial biofilm, delay or inhibit wound healing. Removing this detritus, otherwise known as "detritolysis", accelerates wound healing.

B. Braun has developed a comprehensive range of wound care products which enables optimal wound management by supporting and accelerating endogenous healing.

B. Braun Wound Care products focus on every type of wound at each phase of wound healing. By providing innovative solutions such as Prontosan® Wound Irrigation Solution, bacterial biofilm can be efficiently removed thereby clearing the way for application of advanced wound dressings from the Askina® range, to assist in the complex task of tissue repair.

Chronic wounds

Wound management: old myths and scientific evidence

Optimal treatment for difficult-to-treat wounds can be challenging for healthcare professionals and caregivers – especially with concern to the growing number of elderly patients. Chronic wounds have an enormous impact on patients' quality of life and on health care resources. At the B. Braun symposium intriguing new scientific and clinical findings were presented which provide an overview of the latest research, perspectives and the state of the art in wound management. Leading experts in the field of wound care address how wound treatment can be standardized and optimized with proper wound bed preparation and innovative wound dressings.

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In the first lecture, Prof. Dr. Luc T  ot, Montpellier/France, discussed the problem that a universal consensus for the best available procedures in wound care does not exist. However, different protocols of care depending upon practitioner habits, patients' demands, agency and/or company recommendations are available. Standards for optimized wound treatment must be easy to implement, easy to teach and affordable, T  ot emphasized. Beside the therapist's experience and the patient's condition, further relevant parameters of successful wound healing are the hygienic state of the wound, properly performed wound bed preparation and the choice of appropriate wound dressings. Optimization of care is the most important parameter because it is often the only possibility to facilitate healing. This, in turn, depends mainly on the application of the right product at the right time. Given the local reimbursement situation in different countries, there is of course a risk that cost factors may lead to an inadequate and sometimes even inappropriate treatment regime.

Wound bed preparation – what has changed?

With the introduction of the TIME framework as a tool for the "best practice" in wound bed preparation (WBP) the four main and most important components of wound care are: tissue, infection, inflammation, moisture and edge. One of the central requirements to accelerate wound healing is a properly performed debridement followed by thorough wound cleansing to diminish bacterial biofilm, necrotic tissue and detritus. These wound coatings may inhibit the processes involved in wound healing. Prof. Dr. Gerit D. Mulder, San Diego/USA, reviewed recent advances in promoting endogenous wound healing by a cleansing solution and gel which contain polyhexanide and betaine (Prontosan®). Several clinical trials demonstrate the success of WPS with a polyhexanide and betaine containing agent. In a randomized controlled trial, the cleansing solution reduced the pH value in wounds which is a surrogate marker for bacterial burden. In a further randomized study the gel was shown to lead to faster wound size reduction in chronic wounds. Moreover, it has been demonstrated that a combination of the solution and the gel lead to a wound

closure in 80% of the patients with improved wound assessment findings. Additionally, it has been reported that wound cleansing with the polyhexanide and betaine containing solution may accelerate healing compared with traditional cleansers such as normal saline or Ringer's solution.

New challenges in wound dressings

The increasing understanding of wound biology has led to major improvements in wound dressings. Modern wound management not only focuses on healing the wound but also on the patients' quality of life, Prof. Dr. Sylvie Meaume, Paris/France, reported. Moist wound therapy provides a healing environment conducive to natural healing conditions. The most advanced wound dressings consist of polymers which provide good control of absorption and fluid handling. In dressings from the Askina® range, silicone adhesives have been integrated to provide more comfort through atraumatic dressing removal. On the other hand, exudate may pass through the silicone adhesive quickly into the polymer foam. Due to the controlled absorption, there is a reduced risk of maceration at the wound edges. Moreover, the addition of ionic silver into the matrix formulation may reduce bacterial load and local infection. Given, the increasing number of elderly patients with chronic wounds, cost-effectiveness of wound care is a further challenge in the management of chronic wounds. Strategies should be developed to identify and deliver best available care while limiting complications and costs, Meaume emphasized. With the Askina® product range – utilizing different technologies – effective dressings for each phase of wound healing are available. By applying the right products, at the right time, in the right order and manner, faster and sustained wound healing could be achieved. This, in turn, may be beneficial for patients and cost-effective for health systems.

References

- 1 Symposium „Myth or Reality in Chronic Wound Management“, EWMA congress, Brussels, May 25th, 2011
- 2 Romanelli et al. Evaluation of the efficacy and tolerability of a solution containing propyl betaine and polyhexanide. *Skin Pharmacol Physiol* 2010; 23 (Suppl 1): 41-44
- 3 Valenzuela AR, Perucho NS. The effectiveness of a 0.1% polyhexanide gel. *Rev ROL Enf* 2008; 31: 247-252
- 4 Moeller A et al. Experiences in using polyhexanide containing wound products in the management of chronic wounds – results of a methodical and retrospective analysis of 953 cases. *Wundmanagement* 2008; 3: 112-117
- 5 Andriessen AE, Eberlein TE. Assessment of a wound cleansing solution in the treatment of problem wounds. *Wounds* 2008; 20: 171-175

Introduction

Luc Téot, M.D.

(Montpellier, France)

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Centre Hospitalier Universitaire, Montpellier, France.*

Dr. Téot is a founding member of the French Wound Healing Society and current president of the Academy of Wound Technology. He has served as Vice Chairman of the European Society of Surgical Research, President of French Wound Healing Society, President of European Tissue Repair Society and President of World Union of Wound Healing Societies. He is a board member of several scientific journals including Wound Repair and Regeneration and the International Journal of Lower Limb Injuries.

Standards of best available practice in wound care are defined in consensus-based official recommendations as well as in national and/or international guidelines. However, a universal consensus does not exist. There are currently different protocols of care depending upon practitioner habits, patient demands, agency and/or company recommendations. In order for a consensus to be achieved these standards of care must be easy to implement, easy to teach and affordable. Successful treatment depends on the hygienic state of the wound, properly performed wound bed preparation, the choice of adequate wound dressings, the therapist's experience and as already mentioned, on the patient's condition. As the underlying condition of the patient can routinely not be influenced significantly, the optimization of care is thus often the only way to achieve healing. Closure of the wound therefore often depends on the implementation of the correct products. This choice however depends not only on the experience of the caregiver but often on the local reimbursement situation in a specific country leading to inadequate and sometimes even inappropriate regimens. This symposium addresses how wound treatment can be standardized and optimized with proper wound bed preparation and how we should revise some old myths in order to make the right choice for best care and use of wound dressings.

Past, present and future of wound bed preparation

Gerit D. Mulder

D.P.M., M.S., FAPWCA, FRCST, BSc (San Diego, USA)

Dr. Mulder is a Professor of Surgery and Orthopedics and Director of the Wound Treatment and Research Center in the Department of Surgery, Division of Trauma at the University of California San Diego. In addition to his medical degree, he holds degrees in Basic Medical Sciences and Masters of Science with emphasis on population genetics. He is currently a PhD candidate with a thesis focusing on stem cells as related to non-healing wounds. His medical focus over the past 29 years has been related to tissue repair and wound healing. He is internationally known for his work and has authored more than 200 publications in scientific journals in the field of tissue repair, wound care management and molecular research.

The concept of wound bed preparation (WBP) was first suggested by Falanga (2000) and scientifically further developed by Schultz et al. (2003) with the introduction of the TIME framework as a tool for “best practice” in the clinical setting. TIME addresses the four main components of WBP: tissue, infection / inflammation, moisture and edge. A prerequisite for WBP is properly performed debridement in order to remove all “debris” from the wound followed by thorough cleansing to reduce bacterial burden and biofilm as well as fibrin layers. Using the example of a polyhexanide and betaine cleansing solution and gel, the clinical experiences and scientific evidence with these approaches are presented. A completed RCT showed that the irrigation solution reduces the pH value in wounds which is a surrogate marker for bacterial burden (Romanelli, 2010). An additional RCT showed that use of the gel leads to faster wound size reduction in chronic wounds (Valenzuela, 2008). In addition, the results of a retrospectively performed cohort study revealed that use of the solution and gel in combination lead to a wound closure rate in 80% of the patients with improved wound assessment findings (Moeller et al., 2008). A further retrospective study showed that wound cleansing with the solution can lead to faster healing when compared to traditional wound cleansers such as normal saline and Ringer’s solution (Andriessen et Eberlein, 2008).

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New challenges in chronic wound dressings

Sylvie Meaume, M.D.

(Paris, France)

*Head of Dermato-Geriatric Department and Wound Care Unit,
Hôpital Rothschild, Assistance Publique - University Hospitals, Paris, France*

Dr. Meaume is specialized in dermatology, internal medicine, gerontology and allergeo-immunology. She has further education in the fields of molecular biology, immunology and molecular pharmacology from the University of Paris. She is president of the French Wound Healing Society and is a board member of the European Wound Management Association. She is head of the Academic Wound Care and Wound Management Program at the University of Paris since 1997. Dr. Meaume is also a co-founder of the French Journal of Wound Care, French National Wound Care Conference and Journal of Wound Technology. She has published over 100 peer reviewed articles on wound healing, scars, pressure ulcer and venous leg ulcer management, assessment of dressings and nutrition, with an emphasis on the aging population.

Standards of wound care have evolved for many years and have been mainly influenced by available technology as well as by the level of understanding of wound biology. While a strong focus was placed on healing of the wound, the patient's quality of life has now clearly moved into focus. Dressing categories have evolved from hydrocolloid dressings to more advanced polymers providing good control of absorption and fluid handling. More recently, active components have been integrated in those polymers to provide antimicrobial or analgesic properties. Silicone adhesives have been integrated in dressings providing more comfort through atraumatic dressing removal. Silver has been provided for efficient control of bacterial load and local infection. Only recently, the use of moist wound dressings is supported by growing evidence as acknowledged by leading authorities (e.g. HAS, IQWiG). The growing number of elderly patients and their impact on health care resources suggest that a higher awareness and better cost-effectiveness in wound care is of utmost importance. This has been described in detail by Posnett et al., 2009. The strategy should become how to identify and deliver best available care while limiting complications and costs. Best practice has been "fashioned" by years of hands-on experience and has sometimes even become a myth, such as the use of gauze for chronic wounds. Currently, several new technologies have been recognized as providing a significant improvement in wound care, leading to faster and sustainable wound healing. By using the right products at the right time in the right order and manner, means that the standard of wound care can presently be defined which not only takes into account patient requirements but also the costs of the therapy.

References

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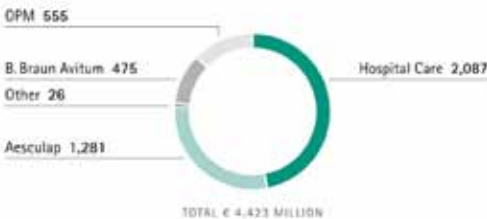


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B. Braun supplies the global healthcare market with products for anesthesia, intensive medicine, cardiology, extra corporeal blood treatment and surgery, as well as services for hospitals, general practitioners and the homecare sector. Through dialogue with those who are using B. Braun's products, the company is continually gaining new knowledge which it incorporates into product development. In this way, the company contributes with innovative products and services towards optimizing working procedures in hospitals and medical practices all over the world and improving safety – for patients, doctors and nursing staff.

Employees: approx. 41,000 worldwide
Sales 2010: € 4.42 billion
Locations: more than 56 worldwide

Sales by division | IN € MILLION



Organization:

Four divisions orient their products and services toward different medical fields.

The **Hospital Care Division** supplies hospitals with injection and infusion solutions and therapy devices, as well as a variety of medical disposable products. Core products and therapy fields are electronic infusion devices, infusion sets and accessories, peripheral IV catheters, IV solutions and drug delivery systems,

clinical nutrition, volume replacement therapy. Specific products are disposable syringes and needles, hospital services for parenteral nutrition, specialized and generic medications, pharmacy accessories, regional anesthesia, central venous catheters, irrigation Solutions, urological drainage and measurement and wound drainage.

Products and services for all core surgical procedures are the focal point of the **Aesculap Division**. Core products are surgical instruments and suture materials. Specific products and product groups are orthopedics/traumatology, spinal surgery, motor systems, neurosurgery and vascular therapy.

The **OPM Division** provides products and services for medical care needs outside of the hospital, as well as for chronically ill long-term patients. Core products and product groups are ambulatory IV therapy, parenteral nutrition, home care, stoma care, skin care and wound care management. Specific products/groups are individual parenteral nutrition regimens, TransCare consulting, incontinence care, enteral nutrition, disinfection and hygiene and diabetic care.

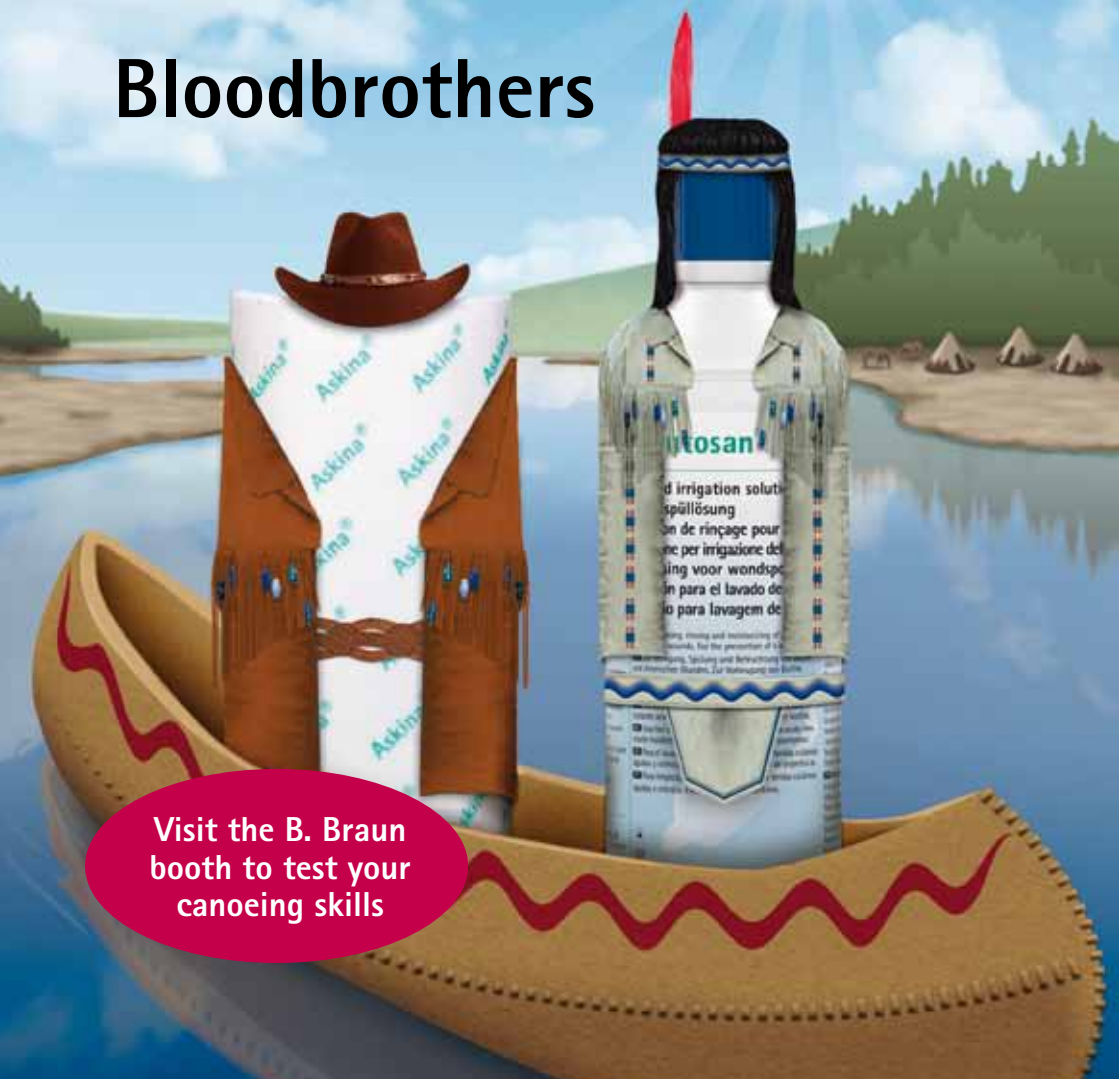
The **B. Braun Avitum Division** combines the supply of products and medical services for extracorporeal blood treatment. Core products/groups are machines, dialyzers and other products designed to treat Hemodialysis. Specific products/groups are acute Dialysis, H.E.L.P. systems and medical services.

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