Evaluation of Suprasorb® X+PHMB across a primary care organisation: A clinical and financial perspective.

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Introduction
Whilst the management of infection is currently high on the government agenda, the management of critically colonised and infected wounds poses a significant challenge for clinicians and the impact of infection on morbidity and mortality is high. The Guidelines for the management of MRSA include the avoidance of inappropriate or unnecessary use of antibiotics to reduce the likelihood of emergence and spread of resistant strains (Cox et al, 2006). Additionally, the current economic climate in the NHS has highlighted the need to review care and cost provision (Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection 2010). Managing wound bio-films and infection presents the clinician with new challenges due to higher expectations for positive outcomes without inducing pathogen resistance (Wounds UK 2010).

A UK Primary Care Trust has reviewed the management of infected wounds in its wound management team, with representation of acute and primary care staff including tissue viability, infection control, podiatry, procurement and management. This, alongside the availability and evidence to support the introduction of PHMB into the UK market (Mosti, 2008; Mulder 2007), led to a decision to evaluate Suprasorb® X+PHMB, as it offers both an effective HydroBalance wound dressing without known evidence of resistance (Butcher 2010). Suprasorb X dressings are made up of biosynthetic, Hydrobalance fibres which are 200 times finer than cotton, providing a high surface area, enhancing its moisture handling capabilities and its tensile strength. PHMB - Polyhexanide is a broad spectrum antimicrobial agent effective against bacteria, fungi and yeasts.

Method
This audit followed the existing process for evaluation of new dressings within the Primary Care Trust, with an agreed audit tool, clinical governance approval and the provision of dressings by the manufacturer. An audit of 20 patients was undertaken by the Worcestershire County Tissue Viability Team. The selection criteria included:
- Non-healing (non-progressing) wounds, including leg ulceration, sacral pressure ulcers
- Low-moderate exuding wounds
- Wounds with a history of recurrent infection
- Patients over age 18 and able to agree to take part

The recommended length of treatment was for maximum of 14 days - in accordance with The Best Practice Statement for the use of Antiseptic/Antimicrobial Agents in Wound Management (Best Practice Statement 2010).

Results
All evaluations yielded positive outcomes for the patient. Outcomes included:
- Reduction in devitalised tissue
- Increase in amount of granulation tissue
- Improvement to wound bed
- Dressing was easily manageable and pliable
- Reduced dressing changes (from daily to every third day)
- No trauma on removal
- Easy to use
- Patient likeness
- Complete resolution of malodour in 24 hours
- Improved quality of life

One member of staff remarked "Made a real difference to the patient’s psychological wellbeing, enabled her to go on holiday and enhanced her daily life."

Discussion
Visible positive results were reported in a very short period of time, particularly on wounds that were unresponsive to previous treatments (including other antiseptic/antimicrobial dressings).

Several evaluations reported a reduction in the number of dressing changes, which presents the Trust with a cost-effective new alternative that will not only reduce cost in terms of primary dressings, but will also reduce usage of secondary dressings, compression bandages and nursing time - which currently is the most valuable resource due to changes within the Primary Care organisation.

The economic impact of introducing Suprasorb® X+PHMB to the Trust’s formulary has been made clear through the evaluation process, but the most important cost in terms of healthcare provision should always be quality of life. The audit has clearly demonstrated an improvement in quality of life alongside efficacy.

Introducing any new product onto the woundcare formulary obviously presents a training need for the Trust. The Tissue viability service is working in partnership with industry specialists to provide full training to relevant staff to ensure safe and appropriate use of Suprasorb® X+PHMB.

Conclusion
Suprasorb® X+PHMB is able to effectively reduce the number of pathogens in the wound and has the additional benefit of no history of resistance or cytotoxicity. It is therefore a viable option and will be considered by the strategic wound management group for inclusion in the next wound management formulary.

References
Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (2010).
Mosti, Mattaliano, Schmitz, Abel, First Italian experience with a polyhexanide containing HydroBalanced wound dressing in hospitalised patients with critically-colonised or infected chronic wounds, Poster Presentation, Wounds UK Harrogate, November 2008.