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### **RANDOMIZED STUDY TO EVALUATE THE REDUCTION IN SKIN DAMAGE CAUSED BY ADHESIVE DRESSING BY USE OF NOVEL SKIN PROTECTION FILMS**

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Repeated application of adhesive dressings to wounds and stoma can result in damage to the stratum corneum (SC) and epidermis surrounding the wound. Damage to the peri wound area can prolong the healing process. This is not only distressing for the patient but may also results in an increase in treatment time and cost.

A novel aqueous based polyurethane liquid (RxA) and a silicone solvent based silicone (RxB), which when applied to the skin form breathable, waterproof filmic barriers, were evaluated for their ability to reduce redness and SC damage in a twelve patient randomized study over a period of five days.

The condition of the skin was evaluated using Expert Grader assessment of erythema (EGE), instrumental measurements for TransEpidermal Water Loss (TWEL), and skin surface redness (Chromameter). Patient self assessed stinging and discomfort.

Statistical evaluation of the results for indicated that daily pre-treatment with RxA resulted in less apparent damage than daily pre-treatment with RxB or no pre-treatment

Patient self assessment showed no significant differences between the use of Rx A and RxB.

Based on the results of this study it can be concluded that the use of a skin protection film is beneficial in reducing potential damage to the stratum corneum cause by repeated adhesive application and stripping. Daily pre-treatment of Rx A was found to be more beneficial than daily pre-treatment with RxB in lessening the extent of SC disruption associated with repeated trauma and removal of adhesive devices.