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Net Work Meta Analysis to Identify the Most Effective Dressings to Treat Pressure Injury

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Abstract : Background and objectives: There are many topical treatments available for Pressure Injury (PI) treatment, yet there is a lack of evidence with regards to the most effective treatment. The objective of this study was to compare the effect of various topical treatments and identify the best treatment choice(s) for PI healing. Methods: Network meta-analysis of published randomized controlled trials that compared the two or more of the following dressing groups: basic, foam, active, hydroactive, and other wound dressings. The outcome complete healing following treatment and the generalised pair-wise modelling framework was used to generate mixed treatment effects against hydroactive wound dressing, currently the standard of treatment for PIs. All treatments were then ranked by their point estimates. Main Results: 40 studies (1,757 participants) comparing 5 dressing groups were included in the analysis. All dressings groups ranked better than basic (i.e. saline gauze or similar inert dressing). The foam (RR 1.18; 95%CI 0.95-1.48) and active wound dressing (RR 1.16; 95%CI 0.92-1.47) ranked better than hydroactive wound dressing in terms of healing of PIs when the latter was used as the reference group. Conclusion & Recommendations: There was considerable uncertainty around the estimates, yet, the use of hydroactive wound dressings appear to perform better than basic dressings. Foam and active wound dressing groups show promise and need further investigation. High-quality research on clinical effectiveness of the topical treatments are warranted to identify if foam and active wound dressings do provide advantages over hydroactive dressings.

Keywords : Net work Meta Analysis, Pressure Injury, Dresssing, Pressure Ulcer
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