

Nursing Category

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A Randomised Controlled Trial to Evaluate the Effectiveness of Prophylactic Dressing and Fatty Acids Oil in the Prevention of Pressure Injury

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Aims: To evaluate the effectiveness of sacral foam dressing and fatty acids oil spray in preventing sacral pressure injuries among high risk patients

Methodology: A randomised controlled trial was conducted in an acute care hospital in Singapore. Patient who had a Braden score of less than or equal to 14, without pre-existing pressure injuries were recruited within 48 hours upon admission. Using simple random sampling, patients were allocated into one of the three treatment arms: (1) sacral foam dressing with standard care; (2) fatty acids oil spray with standard care; (3) standard care only. Standard care includes two hourly turning, pressure-relieving mattress and routine skin care. Patients were monitored for up to 14 days for any incidence of pressure injury during hospitalisation.

Result: Out of the 461 patients recruited, 13.9% (n=64) dropped out of the study, 21.7% (n=100) received sacral foam dressing, 24.3% (n=112) received fatty acids oil spray and 40.1% (n=185) received standard care. Mean age of patients was 75.8 (SD= ±14.2) and 52.1% (n=207) were females. The average length of stay was 7 days (SD = ±4 days). Five patients developed pressure injuries in the dressing group, seven patients developed pressure injuries in the fatty acids oil spray group and ten patients developed pressure injuries in the standard care group. There were no statistical significant differences between the three treatment arms.

Conclusion: The finding was not statistically significant as the sample size was not adequately powered. However, having additional preventive measures seem to suggest a clinical advantage in reducing the incidence of sacral pressure injuries among high risk patients..