

Evaluation of a high capacity super absorbent dressing with a silicone release layer versus a traditional hydrofiber and a traditional alginate in ease of release and wound base protection

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Problem Statement

Venous insufficient ulcers exude large amounts of fluid. As the edema in the legs resolve, the wound bases may bleed and dressings can stick to the base making them difficult to remove and causing excellent granulation tissue to be disturbed. This study takes a look at the use of a traditional hydrofiber and an alginate versus a high capacity super absorbent dressing with a silicone contact layer and the ability to protect a wound base during removal.

Study overview and past treatment and execution

Thirty residents/patients were followed. All had resolving edema and venous insufficient wounds. All had moderate drainage upon the initiation of the study. Ten used the traditional hydrofiber, ten used the alginate and ten used the high capacity super absorbent with silicone for their primary dressing over their ulcers. All were cleansed with normal saline and placed in a three layer sustained compression therapy device after dressing application. The wounds were examined every three days with reapplication of all said components after each observation. The wounds were evaluated for ease of release after the three day lapse for 12 days. Full release was used to report no fibers being left behind and no bleeding. Moderate difficulty was reported if some fibers (<20%) were left behind and some minimal bleeding. Extremely difficult was reported if more than 20% of the fibers were left and/or frank bleeding occurred.

Findings

After three days with the use of the alginate, three reported full release, five of ten reported moderate difficulty with release, two

Alginate findings

(severity rated full release = FR, moderate=MOD and extreme difficulty = ED)

Client #	Day 1	Day 3	Day 6	Day 9	Day 12
1	ED	FR	MOD	MOD	ED
2	ED	MOD	ED	ED	ED
3	ED	MOD	MOD	MOD	MOD
4	ED	ED	ED	ED	ED
5	ED	MOD	MOD	MOD	ED
6	ED	FR	FR	MOD	ED
7	ED	FR	MOD	MOD	ED
8	ED	MOD	MOD	ED	ED
9	ED	MOD	MOD	MOD	MOD
10	ED	ED	ED	ED	ED

Traditional hydrofiber findings

(severity rated full release = FR, moderate = MOD and extreme difficulty = ED)

Client #	Day 1	Day 3	Day 6	Day 9	Day 12
1	ED	FR	FR	FR	MOD
2	ED	MOD	MOD	ED	ED
3	ED	FR	MOD	MOD	ED
4	ED	FR	MOD	MOD	ED
5	ED	FR	FR	MOD	MOD
6	ED	MOD	MOD	ED	ED
7	ED	FR	FR	FR	FR
8	ED	FR	FR	MOD	ED
9	ED	FR	FR	FR	MOD
10	ED	MOD	MOD	ED	ED

High capacity super absorbent with silicone findings

(severity rate full release = FR, moderate = MOD, and extreme difficulty = ED)

Client #	Day 1	Day 3	Day 6	Day 9	Day 12
1	ED	FR	FR	FR	FR
2	ED	FR	FR	FR	FR
3	ED	FR	FR	FR	FR
4	ED	FR	FR	FR	FR
5	ED	FR	FR	FR	FR
6	ED	FR	FR	FR	FR
7	ED	FR	FR	FR	FR
8	ED	FR	FR	FR	FR
9	ED	FR	FR	FR	FR
10	ED	FR	FR	FR	FR

reported extreme difficulty. After six days, one reported full release, seven reported moderate difficulty and three reported extreme difficulty. After nine days, zero reported full release, six reported moderate difficulty and four reported extreme difficulty. After twelve days, zero reported full release, two reported moderate and eight reported extreme difficulty. After three days with the use of the traditional hydrofiber, seven reported full release, and three reported moderate difficulty. Zero reported extreme difficulty. After six days, five reported full release, five moderate and zero extreme. After nine days, three were full release, four were moderate and three were extreme. After twelve days, one was full release, three were moderate and six were extreme. After three days with the use of the high capacity super absorbent with silicone, ten had full release. Zero moderate and zero extreme. After six days, ten had full release, zero moderate and zero extreme. After nine days and twelve days, ten still had full release, zero extreme and zero moderate.

Conclusion

The high capacity super absorbent with silicone had a more efficient release from fragile tissues than the comparative hydrofiber and alginate.

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