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Tables

Table 1. Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
Aged >65 years	Aged <65
Able to give informed consent	Unable to give informed consent
Xerosis on both lower legs: determined by clinical judgement and the presence of skin thickening, redness, flaking skin, itching	Absence of lower leg xerosis
Willing to forgo showering and immersion bathing for 3 days prior to and 6 days during the study	Not willing to forgo showering and immersion bathing for the duration of the study
No current leg ulcers	Current leg ulcer
No skin disease present	Skin disease present

Table 2. Demographic details of female participants (n=10).

Participant number	Age
1	69
2	95
3	65
4	88
5	95
6	74
7	65
8	75
9	73
10	65

Table 3. Interventions used on each site. Five combinations of cleansing/emolliating were used on each of five sites on each lower leg. One site was the control site.

Skin regimen and site	Rationale
1. The control site. Untreated – no soap, water or emollient was used during the trial	
2. Gauze wetted with 1½ mls soapy water applied and covered with cling film for 10 minutes (soap and water)	Soap is currently the most commonly used cleansing agent. It was prepared daily as follows: <ol style="list-style-type: none"> 1. gloved hands wetted with warm cooled boiled tap water for 5sec 2. soap wetted with warm cooled boiled tap water 10sec 3. soap lathered in gloved hands for 30 sec using a firm, slow massaging procedure 4. 1½ mls of the resulting lather measured with a syringe was transferred onto the gauze before application to the skin.
3. Boiled tap water 1½ mls on gauze covered with cling film for 30 minutes (water alone)	30 minutes exposure to water is indicated in studies as the least damaging to the skin (Ramsing 1997, Warner, Stone et al. 2003, Warner, Boissey et al. 1999)

4. A thin film of <i>Vaseline</i> TM ointment applied to the area at a rate of 2mg/cm ² .	This was to test the effect of <i>Vaseline</i> TM when used alone.
5. Gauze wetted with 1½ mls soapy water applied and covered with cling film for 10 minutes followed by 1½mls boiled tap water on gauze covered with cling film for 30 followed by a thin film of <i>Vaseline</i> TM at a rate of 2mg/cm ² . (soap and water plus ointment)	Cling film traps the substance used next to the skin producing a similar affect to soaking.
6. Gauze wetted with 1½ mls soapy water applied and covered with cling film for 10 minutes followed by 1½ mls boiled tap water on gauze with 2 % glycerine added covered with cling film for 30 minutes, followed by a thin film of <i>Vaseline</i> TM (at a rate of 2mg/cm ²). (soap and water plus ointment and a humectant)	Positive mechanical effects on skin were reported 10 minutes after an application of glycerine (Overgaard & Jemec, 1993). Best practice on the use of emollients in dry skin conditions suggest that emollients are best applied when the skin is moist as it is after bathing or washing when the skin has high water content (Holden, English et al, 2002). Skin hydration was restored to base values with 2% glycerine following the application of a skin irritant (Atrux-Tallau, Romagny et al, 2010).

Table 4: Sequence of skin –care related intervention used on different anatomical sites of the lower legs of older people.

Participant number	Site 1 Right upper	Site 2 Right middle	Site 3 Right lower	Site 4 Left upper	Site 5 Left middle	Site 6 Left lower
1	Intervention 1	Intervention 2	Intervention 3	Intervention 4	Intervention 5	Intervention 6
2	Intervention 6	Intervention 1	Intervention 2	Intervention 3	Intervention 4	Intervention 5
3	Intervention 5	Intervention 6	Intervention 1	Intervention 2	Intervention 3	Intervention 4
4	Intervention 4	Intervention 5	Intervention 6	Intervention 1	Intervention 2	Intervention 3
5	Intervention 3	Intervention 4	Intervention 5	Intervention 6	Intervention 1	Intervention 2
6	Intervention 2	Intervention 3	Intervention 4	Intervention 5	Intervention 6	Intervention 1
7	Intervention 1	Intervention 2	Intervention 3	Intervention 4	Intervention 5	Intervention 6
8	Intervention 6	Intervention 1	Intervention 2	Intervention 3	Intervention 4	Intervention 5
9	Intervention 5	Intervention 6	Intervention 1	Intervention 2	Intervention 3	Intervention 4
10	Intervention 4	Intervention 5	Intervention 6	Intervention 1	Intervention 2	Intervention 3

**Table 5. Summary of SC hydration level changes within the lower legs of older people
In arbitrary units.**

Treatment	Mean (SD)	Minimum	Maximum
Control	0.14 (2.89)	-5.94	3.20
Soap	0.56 (2.44)	-2.06	6.30
Water Soak	0.81 (4.32)	-5.37	6.84
Vaseline	2.42 (3.12)	-1.50	7.47
Soap, water and <i>Vaseline</i> TM	3.11 (2.21)	-0.66	5.66
Soap, glycerine and <i>Vaseline</i> TM	7.92 (3.93)	1.47	12.93

Table 6. Summary of TEWL changes (gH₂O/m²/h) within of the lower legs of older people

Treatment	Mean (SD)	Minimum	Maximum
Control	-0.66 (2.12)	-3.20	3.40
Soap	0.29 (1.29)	-2.70	2.10
Water Soak	-0.12 (1.41)	-2.10	1.60
Vaseline	-0.38 (1.11)	-2.00	1.00
Soap, water and <i>Vaseline</i> TM	-0.09 (1.18)	-2.30	1.10
Soap, glycerine and <i>Vaseline</i> TM	-1.14 (1.47)	-4.30	0.10

Table 7. Post-hoc Nemenyi test for SCH.

Intervention	Stratum corneum hydration (statistical significance)
Control vs soapy water, 2% glycerine soak and <i>Vaseline</i> TM	(p=0.011)
Soap vs soapy water, 2% glycerine soak and <i>Vaseline</i> TM	(p=0.050)
Water soak vs soapy water, 2% glycerine soak and <i>Vaseline</i> TM	(p= 0.011)