

How one trust saved money by changing its leg cleansing methods in a switch to debridement cloths

KEY WORDS

- » Cost savings
- » Debridement
- » Skin care
- » UCS Debridement Cloth
- » Venous leg ulcers

A review of skin and leg ulcer practice in clinics and care homes in the Wirral highlighted a need for change. The practice in place required a healthcare assistant to undress and soak each patient's leg in a bucket of water and cover the leg with a non-adherent dressing and cotton bandage until a qualified nurse followed later to apply the compression bandages. This pilot was developed to evaluate a different way of deep cleansing the wound and skin, removing debris and dry scale without the need for water. This resulted in one nurse cleansing and dressing each wound which simplified the process and also reduced costs for the NHS and reduced the risk of musculoskeletal injuries to staff by removing the need to lift heavy buckets of water.

In 2014 there was a review of the way patients with leg ulcers were treated in the community at an NHS trust in the Wirral. At that time, a healthcare assistant (HCA) would remove dressings and wash the leg either in the home or clinic. A registered nurse would then re-assess and bandage the wound. There were a number of problems with this method, particularly the risk of injury to staff caused by the strain of lifting heavy buckets of water and the inefficient use of staff.

Sick leave figures for the community team account for more than 50% of the trust's reported absences. A significant proportion of the absences relate to musculoskeletal and back injuries. Musculoskeletal problems, such as back pain, account for 40% of sickness absence among NHS staff and costs approximately £400 million per year nationally. An audit of 5,524 members of NHS staff — 53% of whom were nurses — revealed that 59% had taken time off sick due to back pain (Royal College of Physicians, 2012). There are a number of staff at the trust who are restricted in the activities they can undertake because of back pain and this includes leg ulcer dressings. It follows that a change to practice that could reduce the risk of musculoskeletal damage would be welcome.

A CHANGE IN PRACTICE

Using the Institute for Healthcare Improvement model (Care Quality Commission, 2014) and the

NHS Culture of Compassion (2012) along with the NHS Outcome Framework (2013), the suggested quality improvement described in this article is aligned with the following NHS outcome domains:

- » Domain two: enhancing quality of life for people with long-term conditions
- » Domain four: ensuring that people have a positive experience of care
- » Domain five: treating and caring for people in a safe environment and protecting them from avoidable harm.

The evaluation examined the use of a sterile, pre-moistened debridement cloth — UCS™ (medi UK) — to clean skin and wounds to see if its use could:

- » Save time spent on leg care to free up staff for other tasks
- » Reduce mileage expenses
- » Promote continuity of care
- » Improve the patient experience
- » Improve cost-effectiveness
- » Promote a safer working environment by reducing the risk of musculoskeletal injuries to staff by no longer needing to carry and empty buckets of water.

METHODS

The target group was patients with leg ulcers in the community. The first step was to establish if time was saved for leg ulcer care comparing traditional methods with the use of UCS soft debridement cloths.

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This evaluation was based on a community nursing team with a large population of older people covering a wide geographical area. The study was conducted in the leg ulcer clinic in a community nursing base over an 11-day period in January 2015. The sample population was nine patients evaluating a total of 15 legs.

A separate assessment was completed at the clinic to gain an idea of the patients' experience of UCS soft debridement cloths; 15 patients completed a patient experience questionnaire. The patient questionnaire consisted of seven questions.

- ▶▶ Have you had your leg ulcer/wound cleansed with a UCS soft debridement cloth on previous occasions?
- ▶▶ Did you find UCS soft debridement cloths comfortable when your leg ulcer and surrounding skin was cleansed?
- ▶▶ Did you ask the nurse looking after you any questions about the UCS soft debridement cloth?
- ▶▶ Were you able to see better progress of your ulcer following cleansing with the UCS soft debridement cloth?
- ▶▶ Did you find it easier to have your leg cleansed with the UCS soft debridement cloth instead of using traditional methods of leg ulcer care?
- ▶▶ Did you find the UCS soft debridement cloth moisturised your skin?
- ▶▶ Is there anything else that you want to tell us?

Another questionnaire was completed to assess staff's experience of using UCS debridement cloths.

RESULTS

Information from a previous internal audit using 29 patients was used to calculate the average time to wash a patient's legs when treating a leg ulcer. It took an average of 25–30 minutes for an HCA to remove socks, tights, shoes, bandages and wash each leg in a bucket of water. A mean of 30 minutes was used in calculations for this pilot. Staff on band 3 are paid £11.73 per hour and band 5 pays £17 per hour. The total time taken was 450 minutes when traditional methods were employed (seven hours and 30 minutes) — 30 minutes for each of the 15 legs. The total cost for the HCA to treat the 15 legs was 15 x £5.87 which is £88.05.

The total time taken to remove socks, tights, shoes and bandages and wash legs using UCS wipes was about 15 minutes for each leg. A mean of 15 minutes

was used for this pilot. The total time taken was 225 minutes when the UCS debridement cloth was used (three hours and 45 minutes of a registered nurse's time). The total cost of 15 minutes of a registered nurse's time is £4.25 so the total labour costs for the 15 legs was £63.75.

The total saving on staffing costs per leg per wash is £1.62 when comparing traditional washing by a HCA with a nurse using a UCS debridement cloth. Based on this evaluation the cost savings for labour costs when treating 15 legs was £24.30. The cost of using one UCS debridement cloth per leg is £3 so the overall cost of the treatment is higher but there are other benefits to using the cloths including freeing up time for HCAs and nurses to care for others and making more efficient use of their time.

These figures are based on treatment being given in the clinic. However, the majority of patients in the Wirral's population require home visits. The UCS debridement cloth only requires one registered nurse to visit which has resulted in a 50% reduction in mileage claims. For example, an average patient visit based on an eight-mile return journey at 0.58 pence per mile is £4.64 per trip as two clinicians no longer need to make the trip. A cost saving of £4.64 per patient per 15 patients visits is £69.60. This also does not take into account the cost of time spent travelling between patients which could be freed up to spend on care for other patients.

The patient experience

The rising costs of healthcare and the expansion of the consumer movement has led to a greater demand for public accountability and patients are deemed as being the best judges of the quality of care that they receive (Lees, 2011). Consequently, seeking patient's views in the planning, delivery and evaluation of healthcare interventions is essential (DH, 2010).

The product in this evaluation is a class 2b medical device and therefore medically certified to be used in deep wounds as well as healthy skin. The patients were given multiple choice questions with a section asking for feedback if the patient wanted to.

The questionnaires were shared at a leg ulcer clinic and a random sample of 15 patient experience feedback forms on the use of UCS cloths was gathered. Out of 15 patients, 80% ($n=12$) who completed a patient experience questionnaire had previously had their leg ulcer cleansed with the UCS debridement cloth.

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"The use of the UCS cloth has the potential for promoting self-management of healed leg ulcers which could possibly reduce the prevalence of recurrence."

When asked whether they found the UCS debridement cloth comfortable, 93% ($n=14$) of patients felt that the UCS cloth was comfortable when their leg ulcer and surrounding skin was cleansed. They also reported that it was:

"Very comfortable and cooling"

"Feel it's doing a job"

"Not painful, just a bit uncomfortable"

When asked whether they had asked the nurse looking after them any questions about the UCS debridement cloth, 40% ($n=6$) said they had. They also commented that they were:

"Happy with the cloths"

"Trust the nurses"

When asked if they were able to see better progress of their ulcer following cleansing with the UCS debridement cloth, 67% ($n=10$) said yes with 26% ($n=5$) being unsure. When the patients were asked whether they found it easier to have their leg cleansed with a UCS debridement cloth instead of using the traditional method of leg ulcer care, 67% ($n=10$) said yes.

A recent study (Downe, 2014) has shown that the use of UCS debridement cloths has the potential to improve the patient experience of leg ulcer care and the benefits include:

- ▶▶ Odour reduction
- ▶▶ Cleansing and improvement of skin conditions
- ▶▶ It is safe and simple to use
- ▶▶ It is soothing and gentle which helps to reduce pain and discomfort.

The patients' responses have indicated that not all patients recognise the need to change from traditional leg ulcer cleansing systems to the new UCS debridement cloth. Some acknowledged that it might signal an improvement saying:

"Much better altogether"

"A lot easier for nurses"

But others commented:

"Prefer water in bucket"

"I liked how my leg was washed"

Adapting to change may take time, simply because previous practice can be entrenched and not everyone embraces change.

The use of the UCS cloth has the potential for promoting self-management of healed leg ulcers which could possibly reduce the prevalence of recurrence. When asked, 80% ($n=12$) of the patients felt that the UCS debridement cloth moisturised

their skin. The wipes contain plant extract aloe vera barbadensis which soothes, aids healing and has an anti-inflammatory and antimicrobial property (Downe, 2014). When asked to give further comments, the patients replied:

"Had great treatment from staff"

"A bucket of water feels as though

I have had a wash"

"Prefer a bucket of water"

Good communication is paramount if patients are to understand the rationale for changes in treatment, and providing patients with relevant information enables them to make informed decisions about their care and treatments. Resistance is well recognised as a barrier to change but fears of the change can be addressed and managed after listening to the patient's concerns.

STAFF EXPERIENCE OF USING UCS DEBRIDEMENT CLOTHS IN THE COMMUNITY

During the same period a qualitative study was conducted on 53 patients, evaluating the effectiveness of UCS debridement cloths. Education regarding use of the debridement cloth was provided by the tissue viability service to community nurses. Feedback allowed nurses to evaluate the effectiveness of the UCS debridement cloth in practice, both from the patients' and nurses' perspective.

The time taken to wash a leg using a UCS debridement cloth was similar in both studies with a mean of 15 minutes. All of the staff stated that UCS cloths were easy to use and 94% of participants said that UCS made a noticeable improvement in the condition of the wound with 6% saying there was no noticeable difference. A total of 91% of patients said it was comfortable and 9% experienced some discomfort. 96% said they would use UCS cloths again and only 4% said they would not use the wipe again, however, no rationale has been recorded.

DISCUSSION

The main findings in this article are based on the treatment of 15 leg ulcers (nine patients) using UCS debridement cloths compared with traditional methods of leg ulcer care for removing bandages and washing leg ulcers. By making this change, 450 hours of non-registered band 3 nurses' time was saved, releasing them to provide care for others.



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If these patients were being visited in their homes, the comparison of cost saving for travel expenses for one nurse instead of two nurses visiting patients would equate to a 50% reduction in travel expenses. For example for the nine patients within this audit a cost saving of £41.76 would be made.

The qualitative feedback from this evaluation demonstrates an overall positive patient experience and improved quality of treatment and care.

One of the main issues associated with cleansing a lower limb is the reliance on soaking the leg in a bucket, not only is this an infection risk when carrying, storing and disinfecting buckets of water, there is also a potential risk of back strain for staff (Downe, 2014). The results demonstrate benefits to staff in relation to moving and handling as they will no longer be required to lift heavy buckets of water. This has potential benefits to the organisation in terms of avoided absences and a possible reduction in musculoskeletal injuries.

CONCLUSIONS

The number of older people living on the Wirral is set to increase over the next two decades. By 2032 it is estimated that 27% of the Wirral population will be aged 65 or above with a total estimated population of 82,400 over 65 years of age (NHS, 2012). This will have a considerable impact on

health and social care services, as the number of older people presenting with health-related problems increases. Products that improve the efficiency of leg ulcer care will be invaluable as this patient group grows.

This evaluation suggests that there may be multiple benefits to using UCS debridement cloths to cleanse ulcerated legs. Many of the patients noticed an improvement in the condition of their wound and the majority found it comfortable to have their wound and skin cleaned using the product. Most felt their skin was in a better condition following the use of the product due to its properties and ease of use. The product is much easier for nurses to use and has the potential to reduce the risk of musculoskeletal injuries.

Patients and staff are happy to use the product, experiencing visible improvements in skin condition and therefore the recommendation has been to use UCS debridement cloths across all community nursing teams to clean legs, wounds and interdigital spaces. This will not only save HCAs' time both in the clinics and for home visits, but will also improve the experience for both patients and staff. Although the unit cost of the product is more expensive than conventional methods, the savings to staffing time and the potential reduction in staff injuries more than would make up for these costs.

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