Patient perspectives of silicone technology in stoma care

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This article aims to describe how scientific advances in silicone technology have affected the patient’s experience in stoma care and why this is important. Previous publications by White (2014a; b) described in detail the use of silicone technology to maintain healthy skin in stoma care. The prevention of skin damage by choosing products that have a sound research base provides patients with quality care, enabling them to adapt to life with a stoma and return to normality. White (2014a; b) also discusses silicone and its physical properties in detail—the sources and origins of silicone and why they are useful in ostomy care. This article will look at patients’ real-life experiences of using advanced silicone products specifically designed and developed for ostomy care. Their testimonials illustrate how the latest scientific advances translate into benefits for the patient.

‘There is nothing worse than the constant worry of a leak or the sudden feeling you are wet while away from home. Silken silicone stoma gel has changed my life. I no longer worry each time I go out. I no longer have mountains of washing or have to change my clothes several times each day. It has given me my freedom back and helped me to feel more like myself again.’ Alice (vaginal melanoma patient)

Many readers will be familiar with the proven benefits of soft silicone technology, i.e. its ability to prevent pain and trauma to the patient compared with conventional adhesives (Dykes et al, 2001; Meaume et al, 2003; Waring et al, 2011). Advanced silicone technology has transformed the treatment of wounds and periwound skin. The same concept is applicable to ostomy care and the peristomal skin.

Ostomy patients are extremely prone to developing skin complications as a result of leakage or skin stripping by traditional hydrocolloid products. Their quality of life and general wellbeing can be hugely affected by what may seem small details to others (Nugent et al, 1999; Zajac et al, 2008). Advancements in silicone-based technology aim to eliminate leakage, skin stripping, bad odour and infections, all of which can affect ostomates’ day-to-day life:

‘I have had leaks for 19 years. Some not so bad but some very bad. Sores and burns have become part of my life. I change my pouch every day. Very few times I keep it on longer.’ Brian

Patient needs in ostomy care and features of silicone technology

Skin is the largest organ of the body and usually provides an excellent barrier function. For many people, however, keeping skin healthy becomes a daily challenge.

There are multiple websites and libraries of information—aimed at patients, carers and nurses—dealing with the basic aspects of living with a stoma. There are large directories of stoma appliances and how to use them as well as information and guidance on eating, exercising, sex life, travel and socialising. The ostomate’s experience of their day-to-day life is at the heart of ostomy care. Leakage, irritation, discomfort, fears around bad odour and lack of security are among the most common problems associated with current ostomy products, and affect the patient’s ability to live a relatively normal life.

Some of the key features of advanced silicone technologies (Trio Advanced Silicone Technology):

- Silicone has been engineered and specifically designed for use in stoma management
- It is micro-porous and is designed to be slightly hydrophilic to enable skin to breathe and avoid maceration
- Retains its shape—Trio’s ostomy seals can be stretched over the stoma and will still return to their original shape enabling more control and greater protection of the peristomal skin
- Non-absorbent—Trio’s ostomy seals do not absorb bodily fluids. Absorbency is a feature of hydrocolloid which enables it to help stop leaks. By not absorbing the effluents, Trio’s silicone seals do not break down as hydrocolloid does
- Removal is clean and easy—one-piece removal and avoids stripping the skin or leaving a residue
- Trio silicone seals conform to the shape of the stoma
- Promote comfort due to a high level of flexibility
- Instant adhesion—better seal formed
- Atraumatic removal—less skin irritation

The new range of silicone-based adhesives from Trio Health Care, tried by the patients interviewed here, has been custom-formulated to deliver instant and secure adhesion to the skin, while being atraumatic on removal. Furthermore, their adhesives leave no residue on removal, resulting in a quicker, cleaner pouch-change regimen. Significantly, these adhesives do not absorb large amounts of liquid and bodily waste and are therefore more hygienic to use. They are also breathable and will therefore avoid maceration and promote healthier skin. These products retain their integrity and...
shape for extended wear time, especially for those ostomates who have to change more frequently. The effect of frequent changes is that ostomates do not have a period of respite and their next leak or change is always on their mind. In addition, more changes means more product use and the cost of the prescription is increased.

Testimonials
The patients interviewed here have been using various products from Trio Health Care's new advanced silicone technology range (names are pseudonyms).

Carol
‘I have pseudomyxoma peritonei (cancer of the peritoneum), I had my first operation in 2010 and a second in February 2014. In June 2014 I developed an infection, which turned out to be a fistula. I use an ileostomy bag to collect the discharge from the fistula, which is not healing. The bag sits over my laparotomy scar. I have problems with getting a good seal as the fistula is in a gully and my abdomen is not flat. I have tried different bags and many different pastes and seals. The discharge seems to eat through the pastes causing leakage. Then I was given a sample of Silken stoma gel. This gel is more resistant to the faecal matter. I find it is easier to use than other pastes. It also comes away in one piece when I change the bag. It is the best solution to my problem and I would certainly recommend it.’

Denise and her husband, Eric
Denise: ‘In 2010 it was discovered that I had bladder cancer and I had two preliminary ops where they tried to clear it but they couldn’t, so had a radical cystectomy, in April 2010. This meant I had the stoma. We started off just with the bags, no seal, and we were having a lot of leaking and the nurse suggested a seal, which I used for a couple of years. I would have a leak now and again but they became more regular. I went back to the nurses and it was becoming more of a worry because I was waiting to go in for major heart surgery (end of 2014) … They suggested the new seals, which weren’t on prescription, so they gave us some samples. I found they were very good—I wasn’t having the leaks anywhere near as often. They were very nice on the skin, whereas my skin had started to go a brown colour around where I was using the previous seal—it’s not like that now. … I don’t get a leak with them very often at all, quality of life is better, I’m more confident with them and I had tended to lose confidence previously. Quite difficult to get out of the package and sometimes it breaks off. Once they’re out of the packet and stuck onto the pouch they are just as easy as not having anything there in terms of application. … You have to make sure they’re sealed correctly and around the edge of the seal of the pouch. I would definitely recommend it—the previous seal required me to use a lot of glue-release spray to get them off and you really had to pull them off your skin, but these come off so easily. It’s much, much better. … Eric has helped me putting the seals on the bag so it’s ready for me to use.’

Eric: ‘The positives outweigh the negatives. She uses less release spray to get the bags off. No degradation—previous seal would emulsify. Fine line between it keeping a seal and leaking. None with silicone. We feel we could keep the seal on an extra day—it’s something we may try when Denise is feeling better. They are such a step forward. Don’t understand the instruction of putting the seal onto the skin—what if the stoma urinates before you put on the bag? Fiddly to see what you are doing. She is definitely happier using this product. You go through phases and your body alters and the beauty of the seal, because it is quite fluid, is that it’s more adaptable to your body and its changes. She’s definitely more confident; her skin is better. She only uses the glue spray to remove the bag from the skin. The seal is 30–40 mm. She just uses a small amount and the seal just falls off. It’s brilliant, it seals but it comes off. Her skin is much better as a result of it.’

Felicity
‘I have had my ileostomy now for six and a half years, and for the most part have been very lucky with my pouching system, however, the stoma itself has always been on the short side with a tendency to sit flush. As a result, I have not always been able to get a secure fit and have had to use convex appliances with a seal in order to feel confident in my day-to-day life. I had found that my combination of a seal/washer and two-piece was working well, with the only downside being the tendency for hydrocolloid to stay stuck to the skin after removal. It was quite normal to need to scrub it off with a dampened dry-wipe, which tended to make the stoma-skin margin bleed, and the skin was unavoidably abraded.

‘I saw the information about the new Trio silicone range and sent off for samples. Having tried both the Siltac and the Silvex, I was pleasantly surprised by both versions. It is definitely more difficult to get them out of the packaging, which may be a problem for people with manual dexterity problems, but past that point they are easier to fit, have instant grab onto the skin, and form a secure seal. They also peel off cleanly with the pouching system, leaving no residue on
the skin that could compromise the seal of the next appliance.

‘Perhaps the most compelling benefit for me was that for the first time since having my stoma there was no discomfort under the stoma from the appliance. Before, I had a pinching sensation at the lower edge despite it being properly sited, which I can only attribute to pressure from the convex hydrocolloid wafer, but with the Siltac seal cushioning it, it did not feel like I was wearing a pouching system.

‘A truly innovative product, which not only improves patient experience and confidence, but also extends wear time of the appliance—offsetting the cost to prescribers through reduced frequency of appliance prescribing if this accessory product is used.’

Gemma

‘I had ulcerative colitis for 4 years before having emergency surgery to remove my large intestine leaving me with an ileostomy … Over the next few years I had numerous surgeries [back and forth from an internal pouch to ileostomy] … As I had had so many surgeries my muscle wall on the right side of my abdomen was not strong enough to hold a stoma there for the third time so they moved it to my left side. Unfortunately, because they had to stretch the small bowel over to the left side I did not have a big spout this time. It was a bit more flat, like a loop ileostomy, and I also had a gap underneath where the skin met the stoma. Due to this gap and the stoma being flat I have had many leaks and my skin has been burnt red raw and very sore and itchy. I have tried every seal on the market and none of them worked because you had to mould them to the size of the stoma and mine would drip down into the gap underneath. This was very draining on me mentally and physically as I could not relax or sleep properly because I kept checking my bag. If it did not cause a major leak affecting my clothes it would still be leaking on to my skin. As I had had so many surgeries my muscle wall on the right side of my abdomen was not strong enough to hold a stoma there for the third time so they moved it to my left side. Unfortunately, because they had to stretch the small bowel over to the left side I did not have a big spout this time. It was a bit more flat, like a loop ileostomy, and I also had a gap underneath where the skin met the stoma. Due to this gap and the stoma being flat I have had many leaks and my skin has been burnt red raw and very sore and itchy. I have tried every seal on the market and none of them worked because you had to mould them to the size of the stoma and mine would drip down into the gap underneath. This was very draining on me mentally and physically as I could not relax or sleep properly because I kept checking my bag. If it did not cause a major leak affecting my clothes it would still be leaking on to my skin. As I had had so many surgeries my muscle wall on the right side of my abdomen was not strong enough to hold a stoma there for the third time so they moved it to my left side. Unfortunately, because they had to stretch the small bowel over to the left side I did not have a big spout this time. It was a bit more flat, like a loop ileostomy, and I also had a gap underneath where the skin met the stoma. Due to this gap and the stoma being flat I have had many leaks and my skin has been burnt red raw and very sore and itchy. I have tried every seal on the market and none of them worked because you had to mould them to the size of the stoma and mine would drip down into the gap underneath. This was very draining on me mentally and physically as I could not relax or sleep properly because I kept checking my bag. If it did not cause a major leak affecting my clothes it would still be leaking on to my skin. As I had had so many surgeries my muscle wall on the right side of my abdomen was not strong enough to hold a stoma there for the third time so they moved it to my left side. Unfortunately, because they had to stretch the small bowel over to the left side I did not have a big spout this time. It was a bit more flat, like a loop ileostomy, and I also had a gap underneath where the skin met the stoma. Due to this gap and the stoma being flat I have had many leaks and my skin has been burnt red raw and very sore and itchy. I have tried every seal on the market and none of them worked because you had to mould them to the size of the stoma and mine would drip down into the gap underneath. This was very draining on me mentally and physically as I could not relax or sleep properly because I kept checking my bag. If it did not cause a major leak affecting my clothes it would still be leaking on to my skin. As I had had so many surgeries my muscle wall on the right side of my abdomen was not strong enough to hold a stoma there for the third time so they moved it to my left side. Unfortunately, because they had to stretch the small bowel over to the left side I did not have a big spout this time. It was a bit more flat, like a loop ileostomy, and I also had a gap underneath where the skin met the stoma. Due to this gap and the stoma being flat I have had many leaks and my skin has been burnt red raw and very sore and itchy. I have tried every seal on the market and none of them worked because you had to mould them to the size of the stoma and mine would drip down into the gap underneath. This was very draining on me mentally and physically as I could not relax or sleep properly because I kept checking my bag. If it did not cause a major leak affecting my clothes it would still be leaking on to my skin.'
I am sleeping better, I’m more relaxed, I’m back to practicing my yoga (which I really missed) and I am a lot happier in myself.’

Conclusion

New, advanced silicone products minimise skin damage and retain integrity and shape leading to extended wear time. This means Trio silicone products can reduce changes and therefore costs; especially for those ostomates who have to change more frequently. Additionally, there is a synergy between these products and existing systems where people may have previously had to swap their main appliance to resolve the problem, which causes them to have to ‘start again’ with their confidence and adoption period. Now they could just add the Trio products and they will be able to stay on the system they like and this may stop any issues that they are experiencing. This is a benefit for patient and nurse in terms of time.

The stories told by the patients clearly illustrate that stoma patients’ lives can be filled with worry and anxiety around basic bodily functions. These stories are consistent with those presented in the multiple patient/carer and nurses forums online and reflected in articles such as Tao et al, 2014.

In a qualitative metasynthesis by Tao et al (2014) around personal awareness and behavioural choices on having a stoma, the authors concluded that having a stoma means that the individuals have to learn to be aware of and accustomed to changes and restrictions in their everyday lives. The individuals make behavioural efforts to overcome these restrictions involving; deciding on whether to reveal or conceal their stomas to others based on the possibility of being accepted or rejected, using internal resources and seeking and receiving external supports. It is apparent from work published in this area (Kiliç et al, 2007; Simmons et al, 2007; Hong et al, 2014; Ozturk et al, 2015) that stoma patients commonly experience pain and discomfort and some suffer from low confidence and socialising may be an issue. There can be an emotional burden imposed by the presence of a stoma and its effect on patients’ daily lives.

As health professionals providing support and advice to stoma patients and their carers, it is imperative that the emotive aspect of the care is considered carefully. With the latest technological developments, it is reassuring that certain aspects of patients’ quality of life can improve by having better control over their ostomy care, and beginning to regain some of their confidence as a result. Anecdotal data and personal stories from the patients are good sources of information and evidence. This, in addition to the wealth of scientific and technical data that exists around the benefits of silicone technology adds to the pool of evidence on this topic.

Conflict of interest: this article was supported by Trio Health Care


This article is reprinted from the British Journal of Nursing, 2015 (Stoma Supplement), Vol 24, No 5