Silicone is used in abundance in many areas of health care, as well as our general daily lives. The benefits of silicone in healthcare products have become apparent in recent years with products containing the ingredient providing skin protection, reducing pain and promoting healing.

Advances in technology have seen new silicone-based stoma products appear on the market designed to enhance the skin integrity and wear time of stoma products for many patients. Silicone has quite simply revolutionised the patient experience as hydrocolloid did 20 years ago. It may be helpful to think of this revolution in terms of baking, with the move from metal to silicone baking trays, which has modernised the world of baking for the next generation!

Silicone in wound products
In the author’s experience, some wounds are difficult to manage and very painful. Conditions such as burns and pyoderma gangrenosum require atraumatic, non-adherent dressings. If skin is damaged during dressing removal, further pain and delayed healing follow. As silicone is ‘inactive’ it is less likely to cause sensitivity reactions (Yarwood-Ross, 2013) and is an alternate choice in the wound healing armoury.

Silicone in stoma care
We are used to using silicone-based adhesive-remover sprays to prevent ‘skin stripping’ when removing stoma bags. Not only does this product prevent damage to delicate skin, but it also prevents painful removal of dressings and products from a sensitive area of skin, thereby allowing a less traumatic experience for the patient (Denyer, 2011). The spray’s effect gives a positive experience to the patient and nurse specialist alike, particularly if the patient has a skin lesion, such as pyoderma gangrenosum, which is extremely painful.

Silicone has, quite simply, revolutionised the patient experience

The benefits of silicone to peristomal skin are now well appreciated, so silicone has been gradually appearing in more stoma products such as accessories including seals, paste and flange extenders. The purpose of extending the silicone range is to apply the benefits of silicone, as seen in dressings and stoma accessory products, which are used to enhance a patient’s stoma care regime when difficulties arise, such as leakage.

Stoma care and rising costs
There has been plenty of evidence to suggest that maintaining skin integrity reduces costs and the financial burden to the NHS; a multicentred trial (Martins et al, 2012) and nationally driven publications such as The High Impact Actions for Stoma Care (Elcoat et al, 2010). Recent pharmacological reviews reveal that stoma care costs are rising, partly because of an increased use of accessory products but also owing to patients stockpiling and GPs being unsure of the costs and prescribing details of stoma products. (PrescQIPP NHS: online).

Stoma seals
Nearly all manufacturers produce washers or seals that provide added security around a stoma and under the pouch. Skin folds or creases, dips and ‘moats’ can be filled with a seal, allowing a flat surface on which to apply the pouch. Each company’s product varies in its make-up but the majority are hydrocolloid-based. These form an occlusive barrier around the stoma but can leave a residue on the skin when removed because they are absorbent and break down over time. Convex and flat seals are available as are different sizes and shapes designed to suit individual needs. However, patients can find these difficult to apply and fit correctly because, once stretched, they remain the size they are stretched to. This can obviously lead to exposed skin and soreness.

What is silicone?
Silicone is a generic term relating to materials that contain the element silicon, along with carbon, hydrogen and oxygen. We may not be aware but silicon exists in its unrefined state—in sand, for example—but when refined, it is used in products in industry, electronics, building, kitchen appliances and personal materials. Examples include kitchen utensils, silicone chips in computers, and in cosmetics.

The properties of silicone that make it interesting are that it is hydrophobic and permeable to gas, it is extremely flexible and has a low surface tension. In health care, silicone prostheses are used for breast implants as well as in wound dressings and stoma products.
Silicone seals

Trio’s (Trio Healthcare Ltd) new and advanced, silicone technology (Figure 1) offers many benefits over traditional and rather outdated hydrocolloid ostomy devices. Trio Silicone Ostomy flat seals come in three flat sizes (20–28 mm, 28–35 mm and 35–44 mm) and two convex sizes (20–30 mm and 30–40 mm). The advantages of silicone have already been explained but, in a seal form, they can be stretched to shape and ‘bounce back’ to fit around a stoma snugly. This feature is particularly helpful for elderly patients who may not be able to apply a conventional seal with ease and accuracy. Significantly, the adhesives do not absorb large amounts of moisture and body waste, and are therefore more hygienic to use. Unlike regular silicone, Trio’s silicone has been specifically engineered for ostomy use and allows trans-epidermal water loss. The seals retain their integrity and shape for extended wear time, but allow the skin to breathe resulting in reduced risk of maceration and, therefore, healthier skin. The range also includes flange extenders and silicone gel for filling creases and crevices.

Cost benefits

As with all stoma products, the costs incurred are proportional to the amount of product used. Reducing leakage and skin problems, which are successfully managed with an effective product, automatically reduces the costs incurred. More importantly it enhances patient comfort and satisfaction, leading to an improved quality of life.

COMMENT

Building better therapeutic relationships

Promoting Concordance in Mental Health presents a practical, skills-based approach to concordance. It explores the concepts of concordance and compliance and addresses specific challenges faced by health professionals, providing clear methods for overcoming them. The text includes case studies, examples, practical guidance and user-carer perspectives, offering insight into relevant challenges and opportunities.

With chapters on prescribing, psychosis, dementia and psychosocial issues, this title is essential reading for all who want to build better therapeutic relationships and achieve better outcomes.

Aimed at mental health workers, mental health students, carers and service users, this book can be used in a variety of settings.

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