Rod Tucker, a pharmacist with a special interest in dermatology, answers more questions submitted by DN readers. If you have a burning question that you’d like to see answered in a future issue, please email it to susan.maguire@bdng.org.uk entitling your email: Ask the Pharmacist.

Q.
As someone who practises electrolysis, I sometimes suggest that my clients purchase a topical anaesthetic from pharmacies. Though some have no problems, others are quizzed embarrassingly about their motives for buying it and some pharmacists refuse to sell it. What are the reasons for this discrepancy?

A.
Background
Body hair removal in women is influenced by cultural and religious practices.

For instance, Middle Eastern brides removed all body hair except from their head and eyebrows the night before their wedding (Fernandez et al, 2013). In Western society the shaving of women’s legs, for instance, can be traced to 1914 when an advert in the women’s magazine, Harper’s Bazaar, encouraged the practice. The following year, Gillette launched the first women’s razor, which led to a more widespread increase in shaving.

Today, shaving of women’s body hair has become strongly normative in Western society as illustrated in a 2005 survey of 678 women. The results showed that 99% of women practiced some form of hair removal, most commonly from the underarms, legs, pubic areas and eyebrows (Toerien et al, 2005).

Hair removal
Hair is essentially a thread of fused, dead keratinocytes that arises from follicles within the skin. There are two parts to hair: the shaft (the visible portion), and the hair root, which is beneath the surface of the skin in the dermis. The hair shaft contains the structural protein keratin, which gives hair its strength. Each hair follicle also has an associated sebaceous gland that produces sebum, which lubricates the hair shaft.

Hair removal can be achieved through one of two ways: depilation or epilation. In the former method, only the hair shaft is removed and the results last for about two weeks. Examples of depilation include shaving and chemical agents (marketed as female beauty products, for example, Nair®, Veet®), which break the chemical bonds in keratin thus weakening the hair shaft, which then dissolves.

Epilation methods include plucking and tweezing, which remove both the hair shaft and the root, and waxing.

In more recent years, laser therapy has been used to remove hair. The process involves photothermolysis in which the laser causes thermal damage of melanin within the hair root and prevents hair regrowth.

Electrolysis
Electrolysis is an electrical method of attempting to permanently destroy hair follicles. In fact, it is the only Food and Drug Administration (FDA) approved method of permanent hair removal. In contrast, laser treatment gives rise to permanent hair reduction. Electrolysis was first used in 1875 by Charles Michel, an ophthalmologist who used the technique for the removal of ingrown eyelashes.

Electrolysis involves the insertion of a needle into the individual follicles to remove the hair and is therefore a time-consuming process. Two types of electrolysis are available, galvanic and thermolysis. However, a method that incorporates both techniques is also available. In the galvanic method (which was used by Michel), an electric current is passed through the needle andreacts with saline present in the follicle to generate sodium hydroxide, which destroys the hair root. The process is very effective but time-consuming and therefore rarely used.

Thermolysis electrolysis involves passing an alternating current through the needle and this causes heating of water in the follicle, which ultimately destroys the follicular...
Topical anaesthetics enter nerve cells in the dermis and prevent the development of an action potential and hence the generation of a nerve impulse. In the UK, the only topical anaesthetic that can be purchased in pharmacies is Emla® cream as a 5g or 30g tube and is suitable for most topical anaesthetic needs. According to the SPC, Emla® cream can be used for "topical anaesthesia of the skin in connection with: intact skin prior to minor dermatological procedures (eg, needle insertion and surgical treatment of localised lesions)". However, the over-the-counter (OTC) use of Emla® cream recommends that the product is used under occlusion for up to 5 hours (PAGB OTC Directory, 2015). It seems therefore that the OTC indication is different and this might be why some pharmacists are reluctant to sell topical anaesthetics.

Pharmacy supply of topical anaesthetics

Topical anaesthetics enter nerve cells in the dermis and prevent the development of an action potential and hence the generation of a nerve impulse. In the UK, the only topical anaesthetic that can be purchased in pharmacies is Emla® cream as a 5g or 30g tube and is suitable for most topical anaesthetic needs. According to the SPC, Emla® cream can be used for "topical anaesthesia of the skin in connection with: intact skin prior to minor dermatological procedures (eg, needle insertion and surgical treatment of localised lesions)". However, the over-the-counter (OTC) use of Emla® cream recommends that the product is used under occlusion for up to 5 hours (PAGB OTC Directory, 2015). It seems therefore that the OTC indication is different and this might be why some pharmacists are reluctant to supply it for use prior to electrolysis.

Pharmacists’ code of ethics with respect to OTC sales states that “Consideration must be given to the types of OTC medicines that may require the personal intervention of a pharmacist… where the marketing authorisation for non-prescription use is restricted to certain conditions and circumstances.”

In other words, although the requested use of the product is within the terms of the product licensed, the OTC indication is slightly different. This could pose a dilemma for some pharmacists because they are supplying a product for use outside of its OTC licence. Such dilemmas are not uncommon in practice. For example, though perfectly safe when used appropriately, hydrocortisone 1% cream cannot be supplied by pharmacists for use on the face, even if the GP has recommended that the patient purchase the cream.

Though extremely unlikely, pharmacists could face a professional misconduct case should any harm come to the patient as a result of the sale and, for many, that is a risk they are unwilling to take. Unfortunately, there is no simple solution to this problem but it seems that some pharmacists do not have any problems with such sales. Perhaps patients should seek out those pharmacists willing to help them.

References


Q.

I am often asked about options for managing mild papulopustular rosacea. These people may ask pharmacists for OTC solutions. What advice do pharmacists give to patients with this form of rosacea? Are there any effective over-the-counter treatments and when should mild rosacea be treated therapeutically?

A.

Rosacea can be defined as a chronic, relapsing inflammatory condition that affects the central portion of facial skin. The condition is thought to affect up to 10% of the population and is more commonly experienced by fair-skinned individuals of Celtic or Northern European heritage (Van Zuuren et al, 2011).

Rosacea occurs more frequently in women (although men tend to experience more severe disease) and in those aged between 30 and 50 years. A system for classifying rosacea was developed in 2002 and revised in 2004 (Wilken et al, 2004). This defined four sub-types: erythematotelangiectatic, papulopustular, phymatous and ocular. In practice, aspects of each of the sub-types can be present to varying degrees in the same patient. Irrespective of the sub-type, a diagnosis of rosacea is made in patients having one or more of the following primary features:

- Flushing (transient erythema)
- Non-transient erythema
- Papules and pustules
- Telangiectasia

Secondary features such as burning or a stinging sensation and oedema may also be present. The visible nature of the condition has a huge psychological impact upon sufferers as witnessed in a survey by the National Rosacea Society (in the US). In the survey of 603 patients, 76% felt that rosacea reduced their self-confidence and self-esteem and 69% had experienced embarrassment because of their condition (National Rosacea Society, 2007).

The precise cause of rosacea remains unclear and, given the different sub-types, it is likely that the cause is multifactorial. Inheritable factors are important and a family history is reported in as many as 30% of sufferers. Patients with rosacea cite potential trigger factors as increased temperature, ingestion of hot drinks,
alcohol, spicy foods and exposure to both cold weather and ultraviolet (UV) radiation. These triggers lead to increased flushing and a sensation of burning or stinging in the skin and have led to the suggestions that the cause is related to aberrant changes within the innate immunity and neurovascular systems.

Treatment of rosacea
Treatments for papulopustular rosacea (which tends to be the form defined as mild to moderate in severity, but can still be very distressing for the individual) include topical antibiotics, for instance metronidazole or azelaic acid, with more severe cases requiring oral antibiotics such as doxycycline. However, none of these agents are currently available for sale in pharmacies. While these therapies reduce lesion counts and the associated inflammation, they are less effective at resolving the persistent erythema in rosacea present in the erythematotelangiectatic sub-type, which is the most common form affecting up to 70% of patients (Kyrkakis et al, 2005).

Until recently, there have been no specific over-the-counter (OTC) treatments for rosacea, though several large pharmacy chains have been selling a Dermalex® rosacea and couperose cream. According to the website: “New Dermalex® offers a steroid-free cream that not only relieves your rosacea symptoms, but also helps in preventing new rosacea flare-ups from occurring” (Dermalex®, 2015). However, there are no published studies to support this claim.

Another recently introduced product is Sequaderma™, which has been studied in a clinical setting and does have a medical device licence. A single study in 61 patients found there was a significant improvement in non-transient erythema in patients with erythematotelangiectatic rosacea (Luger; Rother, 2015). It seems that the focus of both Dermalex® and Sequaderma™ is erythematotelangiectatic rosacea rather than the papulopustular form.

There is some evidence that OTC treatments such as permethrin and benzoyl peroxide can help in papulopustular rosacea, though currently these products do not have an OTC licence. Treatment of rosacea is best managed using topical therapies that are only available on prescription. There is moderate-quality evidence to support the efficacy and safety of topical metronidazole and high-quality evidence supporting azelaic acid (Van Zuuren et al, 2011). Mirvaso® (brimonidine) is a relatively new treatment that has been introduced for “the symptomatic treatment of facial erythema of rosacea in adult patients” (Mirvaso® SPC, 2015).

Finally, in the last few months, Soolantra® (topical ivermectin) has been launched and is indicated for “the topical treatment of inflammatory lesions of rosacea (papulopustular) in adult patients” (Soolantra® SPC, 2015).

Left untreated, rosacea can progress to become more widespread, hence early referral to the GP would be the most appropriate option likely to be suggested by pharmacists.

References
Dermalex® rosacea cream. Available at: www.dermalex.co.uk/rosacea/dermalex-rosacea-2/ [accessed February 2016]
Luger T, Rother M (2013) Both ketoprofen in transfersome (IDEA-070) and drug-free vehicle (TDT 070) improved symptoms in Patients with inflammatory skin conditions. J Invest Dermatol 133: S159–S190

ASK THE PHARMACIST

WWW.BDNG.ORG.UK

DERMATOLOGICAL NURSING, 2016, VOL 15, NO 1 55