

Supporting Training Initiatives



the otc treatment clinic

Common conditions and their treatment options



This module has been endorsed with the NPA's Training Seal as suitable for use by medicines counter assistants as part of their ongoing learning. Complete the questions at the end to include in your self-development portfolio



Welcome to *TM's* OTC Treatment Clinic series. This handy, four-page section is specially designed so that you can detach it from the magazine and keep it for future reference.

Each month, *TM* covers a different OTC treatment area to help you keep up-to-date with the latest product developments. In this issue, we focus on acne. At the end of the module there are multiple choice questions for you to complete, so your progress can be monitored by your pharmacist.

You can find out more in the *Counter Intelligence Plus* training guide.

The last six topics we have covered are:

- Hayfever
- Ovulation and pregnancy testing
- Smoking cessation
- Oral care
- Daily fatigue and stress
- Coughs

You can download previous modules from www.tm-modules.co.uk

module 206

Acne

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for this module

OBJECTIVES: After studying this module, assistants will:

- Be familiar with the basic structure of human skin and the hormonal changes that lead to acne
- Understand the common causes of acne and who is most likely to be affected
- Be aware of some of the most common myths about acne
- Know when to refer sufferers to the pharmacist
- Be able to suggest OTC acne treatments and skincare products
- Be able to advise on self-care techniques to help minimise symptoms.

The life of a teenager can often feel like it's full of drama. So there's really no worse time for a highly visual skin condition to crop up and further affect self-esteem and confidence.

Acne is a very common skin condition. However, it is unlikely that this provides much comfort to a suffering teenager. But it's not just teenagers who are affected – some people suffer well into their adult years, particularly women. Although there is a wide range of OTC products available, as well as effective self-care techniques that can improve symptoms over time, there is sadly no instant, miracle cure.

Acne may seem like a harmless, mildly upsetting skin complaint, yet the severity of the condition can vary, with some lesions being painful and leaving permanent, unsightly scars.

Acne can also have a psychological impact,

with many sufferers finding it affects their self-esteem, and in severe cases it can lead to depression. It is therefore important that the subject is treated with empathy and tact.

Pharmacy teams are often the first port of call for patients who are suffering from skin complaints. Being aware of the various myths surrounding the onset of acne will help you to offer constructive self-care advice and recommend OTC products that will be effective for each customer's individual needs.

It can take up to eight weeks for products to take effect and for skin to noticeably improve. Different acne treatments work to minimise the condition in different ways, so finding the right product for each person can take several attempts. If OTC treatments prove to be ineffective, the customer should speak to their doctor about other

reflective exercise

Emma, 15, comes to the pharmacy with a friend, asking for an acne treatment. Her friend mentions that she previously tried a gel, which was effective. Emma has had mild acne on her forehead since she was 13. She is going to be a bridesmaid at a family wedding in a few months time and wants her acne to have improved by then.

What questions would you ask?

As Emma has suffered with acne since she was 13, ask whether she has tried any medication in the past and if it was successful.

Check whether Emma is taking medication for any other condition, as it may be inducing her acne. Non-epileptic medication in particular can cause sufferers to break out in an acne rash.

Emma says she has not tried any acne treatments, and is not epileptic or taking any other medication.

What would you recommend?

Emma could start off with a product containing benzoyl peroxide. As her friend found a gel formulation to be effective, she may want to try a similar product. Show her the range of formulations and brands in stock. She should start with the lowest strength and work up to higher strengths if necessary. However, in many cases, the 2.5 per cent strength works just as well as the higher strengths and doesn't cause as much skin irritation.

Advise Emma to clean her face at least 10 minutes before applying the gel. Emphasise that the gel should be used sparingly, twice a day at most, to reduce irritation. Care

options that they can try. The important point to stress is that customers shouldn't get discouraged; it may take perseverance until a successful treatment, that is right for them, is found.

Skin science

Skin has two main layers – the outer epidermis and the underlying dermis – as well as structures including hair follicles, sweat glands and cells that produce melanin.

The specific part of the skin affected by acne is sometimes referred to as the pilosebaceous unit (PSU). The main component of the PSU is the sebaceous gland, a small gland connected to a hair follicle in the

should be taken when applying the product near hair or clothes as it can cause bleaching.

What if:

Emma mentions that she thinks wearing make-up may be the cause of her acne.

This is a common myth and although certain cosmetic products can irritate skin, they do not cause acne. Emma should use oil- and fragrance-free moisturisers, and look out for products labelled 'non-comedogenic' as these will have a light, non-greasy formula that doesn't block pores. Wearing oil-free make-up and removing it thoroughly before bed may also help to improve symptoms.

What if:

Emma returns to the pharmacy a month later saying the gel has not made any difference. The acne on her forehead is getting worse and she's becoming increasingly frustrated.

Check that Emma is using the gel as advised. Reassure her that it can take up to eight weeks for products to have an effect and for skin to noticeably improve, so it may be worth persevering with the product for another month. If symptoms haven't improved after eight weeks, recommend trying a higher strength of benzoyl peroxide. Also ask Emma if she is happy with the gel formulation or if she'd like to try a cream or spray instead.

If it appears that Emma's acne is affecting her confidence or making her very unhappy, refer to the pharmacist.

skin that produces an oily substance called sebum. The sebum empties onto the skin surface through the small pores of the hair follicle. PSUs are particularly common on the face, upper back and chest – the areas most commonly affected by acne.

Who suffers from acne?

Acne is a very common skin condition. According to NHS Choices, about 80 per cent of people aged between 11 and 30 will be affected by acne to some extent. The medical term for acne is *acne vulgaris* – 'vulgaris' meaning 'common.'

Acne is most common between the ages of 14 and 17 in girls, and 16 and 19 in boys –

around the time when the hormonal changes of puberty peak.

In general, symptoms tend to improve as the person gets older and usually disappear when they're in their mid-20s. However, for some people, acne remains an issue into adult life – about five per cent of women and one per cent of men have acne over the age of 25.

In adults, about 80 per cent of acne cases occur in women. Symptoms are often linked to changes in hormone levels, such as just before the woman's period is due or during the early stages of pregnancy. Women with polycystic ovary syndrome may also suffer from acne.

There is some evidence that suggests acne runs in families. It has been suggested that if both parents suffered from acne then their child is more likely to develop acne at an earlier age and their symptoms may be more severe. Research also suggests that if one or both parents had adult acne, their child is more likely to suffer from adult acne too.

What causes acne?

Acne is associated with puberty, and is therefore caused by the skin's reaction to hormonal changes.

During puberty, levels of the hormone testosterone increase in both sexes. As a result, the sebaceous glands in the skin are stimulated to produce higher levels of sebum – which is why teenagers often suffer from oily skin and greasy hair.

Dead skin cells, which form the outermost layer of the skin, are constantly being formed and replaced by new skin cells. In acne, some of these dead skin cells mix with excess sebum and block the tiny pores of the skin.

In addition, bacteria (usually *Propionibacterium acnes*), which normally occur harmlessly on the skin's surface, thrive in this excess oil and multiply. If the bacteria grow inside a clogged skin pore, that pore can become red, swollen and inflamed.

Common symptoms

Acne most commonly develops on the face – almost all sufferers will unfortunately get spots on their face. In addition, about half of sufferers develop lesions on their back and about 15 per cent get them on their chest.

There are various different types of acne lesions. The first two are classed as non-inflammatory:

- Blackheads – develop when pores become clogged with sebum and dead skin cells to form 'comedones.' If the entrance to the pore remains open, this blockage may be visible and appear dark, hence the term 'blackheads'
- Whiteheads – or 'closed comedones' become clogged in the same way as blackheads, but the pore opening is closed. This causes them to be slightly raised and have



a white or skin-coloured appearance.

Other types of acne lesions are inflammatory:

- Papules – small, raised bumps that appear red and sore to the touch
- Pustules (pimples) – similar to papules but have a white or yellow pus-filled centre
- Nodules – large, painful and often solid lesions that are lodged deep within the skin
- Cysts – the most severe type of acne lesion. They are large, pus-filled bumps that look similar to boils and can cause permanent scarring.

Severity and complications

Acne varies in severity from person to person. Individual sufferers may notice periods when their symptoms improve and other times when they flare up.

The number of acne lesions, and how painful and inflamed they are, helps to determine the severity of the condition so that the right treatment option can be recommended. NHS Choices suggests the following guidelines to measure the severity of the condition:

- Grade 1 (mild) – mostly whiteheads and blackheads with only a few papules or pustules
- Grade 2 (moderate) – a number of papules and pustules that mostly occur on the face
- Grade 3 (moderately severe) – a large number of papules and pustules, plus some inflamed nodules. The face, back and the chest are often affected
- Grade 4 (severe) – a large number of painful pustules or nodules.

As well as the psychological effects that acne can cause, physical complications can also sometimes occur, particularly in more severe cases:

- Scarring – severe acne can lead to permanent scarring, which is visible even after the acne lesions have healed. Scarring usually results from deep lesions, such as cysts
- Hyperpigmentation – darkening of the skin can occur with severe acne, especially if it was inflamed. This more often occurs in people with darker skin.

Such complications explain why people with severe acne lesions should seek treatment and not let the condition 'run its course'.

What makes acne worse?

Hormones and genetics have a role in the development of acne. However, other factors may make symptoms worse. These include:

- Oil-based personal care products such as make-up, suncreams or hair products
- Stress
- Squeezing or picking at blemishes
- Using harsh, abrasive scrubs or cleansers



Even mild cases of acne can affect a sufferer's confidence

that irritate the skin

- Certain medicines (such as those containing particular steroids, hormones or lithium as well as some anti-epileptic medication)
- Friction or pressure caused by helmets, tight collars, backpack straps, etc
- Pollution and high humidity
- Smoking.

When to refer

In general, the more severe the acne, the more

likely it is that the sufferer will require a prescribed treatment. Anyone suffering with nodules or cysts should be referred to the pharmacist.

However, it's important to remember that acne is not just a cosmetic condition. It can impact a person's self-esteem, and even relatively mild cases can have an effect. An acne sufferer whose condition is impacting on their confidence or happiness should be referred to the pharmacist, as should anybody who has tried appropriate OTC products without success.

OTC treatment options

Treatments for acne tend to be divided into topical products – those that are applied directly to the skin, and oral treatments – those that are swallowed. Typically, OTC products are topical, whereas treatments such as oral antibiotics are only available on prescription from a doctor.

As there is no cure for acne, treatments target some of the main causes of the condition. They may work to reduce the production of sebum in the skin's glands or they may speed up skin turnover so that pores are less likely to become blocked. Other treatments fight bacterial infection or minimise inflammation.

All products take time to have an effect, so

busting acne myths

One of the most important things pharmacy teams can do to help acne sufferers is to dispel some of the myths surrounding the condition. Myths can affect how people view their condition and how they choose to treat it:

- Acne is not caused by poor hygiene or sweating. The face should be washed twice daily. However, more frequent washing or using abrasive scrubs may irritate the skin and make symptoms worse
- Acne is not contagious
- Acne is not caused by a poor diet – experts state that there is no evidence that diet and acne are linked. Eating a healthy, well-balanced diet should be recommended to all customers for their general health
- Wearing make-up or sunscreen doesn't cause acne. However, sufferers should opt for oil-free products, wash their hands before applying products to their skin and ensure that all traces of make-up are

removed before going to bed. Brushes and sponges used to apply make-up should be replaced or cleaned regularly

- Squeezing blackheads and pimples won't improve acne. In fact, squeezing or picking acne lesions can irritate the skin, making symptoms worse and may lead to scarring
- Sun exposure, or the use of sunbeds or sunlamps won't improve acne. Many acne medications can make the skin more sensitive to light so prolonged UV exposure could damage the skin, as well as increasing the risk of skin cancer
- Acne is not seasonal. High temperature and humidity can increase the skin's oil production. However, acne is a year-round condition
- Acne is not caused by oily skin – it is common to have dry skin and acne
- Toothpaste doesn't dry up spots – it contains substances that can irritate and damage the skin.





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warn customers that they may have to wait up to eight weeks before their skin noticeably improves.

OTC topical treatments for acne tend to involve one or more of the following active ingredients:

● Benzoyl peroxide

Benzoyl peroxide helps prevent dead skin cells from plugging hair follicles and kills the bacteria that causes follicles to become infected.

Benzoyl peroxide should be used sparingly (maximum twice a day). It can have a bleaching effect, so care should be taken when applying near hair or clothes. Common side-effects include dry, irritated skin, redness and peeling. These are usually mild and should pass once the treatment has finished.

Benzoyl peroxide is usually available as a cream or gel. Common OTC brands include Acnecide Gel, Oxy on the Spot and Quinoderm Cream. Products come in different strengths, so customers should start with the lowest strength and work up, if necessary.

● Salicylic acid

When applied to the skin, salicylic acid works to promote the shedding of skin cells to help prevent pores from becoming blocked. It may cause mild stinging, and skin irritation or dryness.

OTC brands include the Clearasil range, Soap & Glory Dr Spot and certain Proactiv products.

● Nicotinamide

This is an anti-inflammatory ingredient that

helps to reduce the redness and inflammation of acne lesions. OTC brands include Freederm Gel and Nicam Gel.

● Other ingredients

Other ingredients include antibacterials such as chlorhexidine and cetrimide. These are sometimes included in cleansers as a soap substitute (e.g. Quinoderm Face Wash). Some products also contain sulphur, resorcinol or alpha hydroxy acids such as glycolic acid or lactic acid.

Choosing the right skincare

As mentioned previously, some OTC acne products can cause skin irritation or dryness. However, it's important that acne sufferers avoid heavy, oily moisturisers that may block pores and make their symptoms worse.

Advise customers to look for light, non-greasy products that are oil- and fragrance-free. Products labeled 'non-comedogenic' are recommended as they won't clog the skin's pores. Customers could try using Dermalogica Active Moist or La Roche-Posay Effaclar Mat.

In addition, because some acne treatments can make skin more sensitive to the sun's UV rays, moisturisers that contain a sunscreen may be useful. Available products include: Nivea Daily Essentials Light Moisturising Day Cream with SPF30 and Neutrogena Multi-Defence Daily Moisturiser available in SPF15 or 25.

Skincare tips

Regardless of the treatment being used, there are various self-care techniques that can also

be useful:

- Cleanse skin gently – avoid abrasive scrubs, harsh astringents and oil-stripping masks. Skin should be cleansed twice daily with lukewarm water and a mild cleanser
- Remove all make-up before going to bed and gently wash skin after sweating
- Leave acne lesions alone – never pick, squeeze or pop pimples, blackheads or other lesions
- Choose oil-free, fragrance-free skincare, make-up and hair care products
- Men with acne should be careful when shaving – it may be trial and error to see if a traditional or an electric razor works best for them
- Wash hair regularly and tie it back away from the face
- Use acne treatments as prescribed and persevere – allow eight weeks for skin to improve. Even if the skin clears, medication should be continued as advised to help prevent future breakouts
- Apply topical acne medication five to 10 minutes after cleansing and before applying make-up
- Be cautious in the sun – some acne medications (e.g. benzoyl peroxide) can make skin more sensitive to UV rays and more likely to burn.

More information

- The British Skin Foundation: 0207 391 6341 / www.britishskinfoundation.org.uk
- The British Association of Dermatologists: 0207 383 0266 / www.bad.org.uk

assessment questions: acne

For each question, select one correct answer. Discuss your answers with your pharmacist.

1. Which of the following statements is TRUE?

- a) Acne is not associated with the hormonal changes that occur during puberty
- b) About 80 per cent of people aged between 11 and 30 will be affected by acne to some extent
- c) About one per cent of women and five per cent of men have acne over the age of 25
- d) Women with polycystic ovary syndrome are less likely to suffer from acne

2. Which of the following statements is FALSE?

- a) There is some evidence that suggests that acne runs in families
- b) Rising testosterone levels during puberty cause the skin's sebaceous glands to produce more sebum
- c) The bacteria *P. acnes* can grow inside clogged pores, making them red, swollen and inflamed
- d) Acne most commonly occurs on the chest and back

3. An acne sufferer is looking for some advice. He has a number of papules and pustules, mostly on his face. What grade of acne does he most likely have?

- a) Grade 1 (mild)
- b) Grade 2 (moderate)
- c) Grade 3 (moderately severe)
- d) Grade 4 (severe)

4. Which of the following statements is NOT a myth?

- a) Women are more likely to suffer from acne just before their period is due
- b) Acne is caused by poor hygiene
- c) A fatty diet makes skin greasy and leads to acne
- d) Wearing make-up can cause acne

5. Which of the following factors is NOT a cause of acne, but may make symptoms worse?

- a) Smoking
- b) Stress
- c) Pollution
- d) All of the above

6. Which of these statements is FALSE?

- a) OTC acne treatments tend to be topical, while oral medication often requires a prescription
- b) Some acne treatments make users more sensitive to the sun's UV rays
- c) Benzoyl peroxide can be applied repeatedly, throughout the day
- d) It can take several attempts at different treatment options before acne sufferers find a product that is right for them

