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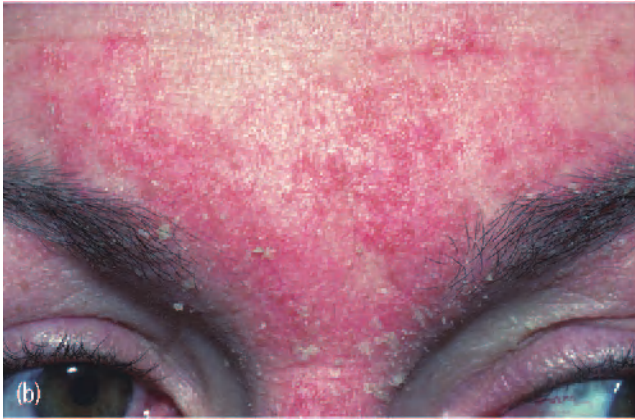


Plate 11
Seborrheic
dermatitis.



Plate 12 Psoriasis vulgaris.



Plate 13 Scalp psoriasis.

conveying information to the doctor with the patient. Several primary care organisations have introduced such forms and the National Pharmaceutical Association also supplies them.

Discussions with local family doctors can assist the development of protocols and guidelines for referral, and we recommend that pharmacists take the opportunity to develop such guidelines with their medical and nursing colleagues in primary care. Joint discussions of this sort can lead to effective two-way referral systems and local agreements about preferred treatments.

Accidents and injuries

Pharmacists are often asked to offer advice about injuries, many of which are likely to be minor with no need for onward referral. The list below shows the types of injuries that would be classified as ‘minor’.

- Cuts, grazes and bruising
- Wounds, including those that may need stitches
- Minor burns and scalds
- Foreign bodies in eye, nose or ear
- Tetanus immunisation after an injury
- Minor eye problems
- Insect bites or other animal bites
- Minor head injuries where there has been no loss of consciousness or vomiting
- Minor injuries to legs below the knee and arms below the elbow, where patients can bear the weight through their foot or move their fingers
- Minor nose bleeds.

Pharmacists need to be familiar with the assessment and treatment of minor injuries in order to make a decision about when referral is needed. Referral to A&E may need to be considered in certain circumstances. The list below provides general guidance on when a person might need to immediately go to A&E.

- There has been a serious head injury with heavy bleeding.
- The person is, or has been, unconscious.
- There is a suspected broken bone or dislocation.
- The person is experiencing severe chest pain or is having trouble breathing.
- The person is experiencing severe stomach ache that cannot be treated by OTC remedies.
- There is severe bleeding from any part of the body.

At least 20% of attendances at A&E are for conditions that could have been managed in primary care and an estimated 8% could have

Alcohol will increase this effect, as will drugs such as *benzodiazepines*, *phenothiazines* or *barbiturates* that have the ability to cause drowsiness or CNS depression. Antihistamines with known sedative effects should never be recommended for anyone who is driving, or in whom an impaired level of consciousness may be dangerous (e.g. operators of machinery at work).

Because of their anticholinergic activity, the older antihistamines may produce the same adverse effects as anticholinergic drugs (i.e. dry mouth, blurred vision, constipation and urinary retention). These effects are more likely if antihistamines are given concurrently with anticholinergics such as *hyoscine* or with drugs that have anticholinergic actions such as tricyclic antidepressants.

Antihistamines should be avoided in patients with prostatic hypertrophy and closed-angle glaucoma because of possible anticholinergic side-effects. In patients with closed-angle glaucoma, they may cause increased intraocular pressure. Anticholinergic drugs can occasionally precipitate acute urinary retention in predisposed patients, e.g. men with prostatic hypertrophy.

While the probability of such serious adverse effects is low, the pharmacist should be aware of the origin of possible adverse effects from OTC medicines.

At high doses, antihistamines can produce stimulation rather than depression of the CNS. There have been occasional reports of fits being induced at very high doses of antihistamines and it is for this reason that it has been argued that they should be avoided in epileptic patients. However, this appears to be a theoretical rather than a practical problem. Antihistamines can theoretically antagonise the effects of *betahistine*.

Interactions:

- alcohol
- hypnotics
- sedatives
- betahistine
- anticholinergics, e.g. *tribexyphenidyl* (*benzhexol*), tricyclics.

Side-effects:

- drowsiness (driving, occupational hazard)
- constipation
- blurred vision.

Cautions:

- closed-angle glaucoma
- prostatic obstruction
- epilepsy
- liver disease.

one or more appropriate remedies have been tried for an appropriate length of time without success, then referral is advisable.

Angiotensin-converting enzyme (ACE) inhibitors

Chronic coughing may occur in patients, particularly women, taking ACE inhibitors such as *enalapril*, *captopril*, *lisinopril* and *ramipril*. Patients may develop the cough within days of starting treatment or after a period of a few weeks or even months. The exact incidence of the reaction is not known and estimates vary from 2 to 10% of patients taking ACE inhibitors. ACE inhibitors control the breakdown of bradykinin and other kinins in the lungs, which can trigger a cough. Typically the cough is irritating, non-productive and persistent. Any ACE inhibitor may induce coughing and there seems to be little advantage to be gained in changing from one to another. The cough may resolve or may persist; in some patients the cough is so troublesome and distressing that ACE inhibitor therapy may have to be discontinued. Any patients in whom medication is suspected as the cause of a cough should be referred to their doctor. Angiotensin-2 receptor antagonists, which have similar properties to ACE inhibitors and which do not affect bradykinin, can be used as an alternative preparation if cough is a problem.

When to refer

Cough lasting 2 weeks or more and not improving
Sputum (yellow, green, rusty or blood-stained)
Chest pain
Shortness of breath
Wheezing
Whooping cough or croup
Recurrent nocturnal cough
Suspected adverse drug reaction
Failed medication

After a series of questions, the pharmacist should be in a position to decide whether treatment or referral is the best option.

Treatment timescale

Depending on the length of time the patient has had the cough and once the pharmacist has recommended an appropriate treatment, patients should see their doctor 2 weeks after the cough started if it has not improved.

Treatment timescale

Patients should see their doctor after 1 week if the sore throat has not improved.

Management

Most sore throats are caused by viral infections and are self-limiting in nature, with 90% of patients becoming well within 1 week of the onset of symptoms. The pharmacist can offer a selection of treatments aimed at providing some relief from discomfort and pain until the infection subsides. Oral analgesics are first-line treatment. A systematic review found that simple analgesics (*paracetamol*, *aspirin* and *ibuprofen*) are very effective at reducing the pain from sore throat. Lozenges and pastilles have a soothing effect. There is some evidence that *benzylamine spray* is effective in relieving sore throat pain.

Oral analgesics

Paracetamol, *aspirin* and *ibuprofen* have been shown in clinical trials to provide rapid and effective relief of pain in sore throat. A systematic review showed no benefit of adding other analgesic constituents. The patient can be advised to take the analgesic regularly to sustain pain relief and the NHS Clinical Knowledge Service advises: 'A regular full dose is better than "now and then" to ease pain until symptoms go'. (For a discussion of doses, side-effects, cautions and contraindications for simple analgesics, see p. 197.) *Flurbiprofen lozenges* are used for sore throat for adults and children aged 12 years and over. They contain 8.75 mg of *flurbiprofen*, and one lozenge is sucked or dissolved in the mouth every 3–6 h as required, to a maximum of five lozenges. *Flurbiprofen lozenges* can be used for up to 3 days at a time.

Mouthwashes and sprays

Anti-inflammatory (e.g. benzylamine)

Benzylamine is an anti-inflammatory agent that is absorbed through the skin and mucosa and has been shown to be effective in reducing pain and inflammation in conditions of the mouth and throat. Side-effects have occasionally been reported and include numbness and stinging of the mouth and throat. *Benzylamine spray* can be used in children of 6 years and over, whereas the mouthwash may only be recommended for children over 12 years.

Local anaesthetic (e.g. benzocaine)

Benzocaine and *lidocaine* are available in throat sprays.

season. Its place in treatment is likely to be for mild and intermittent symptoms in adults and children over 5 years. Advise the patient to keep the head upright during use to prevent the liquid trickling into the throat and causing an unpleasant taste.

Further advice

- 1 Car windows and air vents should be kept closed while driving. Otherwise a high pollen concentration inside the car can result.
- 2 Where house dust mite is identified as a problem, regular cleaning of the house to maintain dust levels at a minimum can help. Special vacuum cleaners are now on sale that are claimed to be particularly effective.

Hay fever in practice

Case 1

A young man presents in late May. He asks what you can recommend for hay fever. On questioning, he tells you that he has not had hay fever before, but some of his friends get it and he thinks he has the same thing. His eyes have been itching a little and are slightly watery, and he has been sneezing for a few days. His nose has been runny and now feels quite blocked. He will not be driving, but is a student at the local sixth-form college and has exams coming up next week. He is not taking any medicines.

The pharmacist's view

This young man is experiencing the classic symptoms of hay fever for the first time. The nasal symptoms are causing the most discomfort; he has had rhinorrhoea and now has congestion, so it would be reasonable to recommend a corticosteroid nasal spray, provided he is aged 18 years or over. If he is under 18 years, an oral or topical antihistamine could be recommended, bearing in mind that he is sitting for exams soon and so any preparation that might cause drowsiness is best avoided. His eyes are slightly irritated, but the symptoms are not very troublesome. You know that he is not taking any other medicines, so you could recommend *acrivastine*, *loratadine* or *cetirizine*. If the symptoms are not better in a few days, he should see the doctor.

The doctor's view

A corticosteroid nasal spray is likely to be more effective. If he cannot use the OTC product because he is under 18 years, *acrivastine*, *loratadine* or *cetirizine* would be worth a try. Even though they are generally non-sedating, they can cause drowsiness in some patients. The student should be advised not to take his first dose just before the exam. If his symptoms do not settle, then referral is appropriate. He

ulcer is readily accessible. Mouthwashes can be useful where ulcers are difficult to reach.

Chlorhexidine gluconate mouthwash

There is some evidence that *chlorhexidine mouthwash* reduces duration and severity of ulceration. The rationale for the use of antibacterial agents in the treatment of mouth ulcers is that secondary bacterial infection frequently occurs. Such infection can increase discomfort and delay healing. *Chlorhexidine* helps to prevent secondary bacterial infection but it does not prevent recurrence. It has a bitter taste and is available in peppermint as well as standard flavour. Regular use can stain teeth brown – an effect that is not usually permanent. Advising the patient to brush the teeth before using the mouthwash can reduce staining. The mouth should then be well rinsed with water as *chlorhexidine* can be inactivated by some toothpaste ingredients. The mouthwash should be used twice a day, rinsing 10 mL in the mouth for 1 min and continued for 48 h after symptoms have gone.

Topical corticosteroids

Hydrocortisone and *triamcinolone* act locally on the ulcer to reduce inflammation and pain and to shorten healing time. The former is used as pellets, the latter as a protective paste. To exert its effect a pellet must be held in close proximity to the ulcer until dissolved. This can be difficult when the ulcer is in an inaccessible spot. One pellet is used four times a day. The pharmacist should explain that the pellets should not be sucked, but dissolved in contact with the ulcer. These treatments are best used as early as possible. Before an ulcer appears, the affected area feels sensitive and tingling – the prodromal phase – and treatment should start then. They should be applied three to four times daily. They have no effect on recurrence, but should be restarted at the first signs of a new outbreak.

Local analgesics

Benzylamine mouthwash or *spray* and *choline salicylate dental gel* are short acting but can be useful in very painful major ulcers. The mouthwash is used by rinsing 15 mL in the mouth three times a day.

Numbness, tingling and stinging can occur with *benzylamine*. Diluting the mouthwash with the same amount of water before use can reduce stinging. The mouthwash is not licensed for use in children under 12. *Benzylamine spray* is used as four sprays onto the affected area three times a day. Although *aspirin* is no longer recommended for children under 16 years because of possible links with Reye's syndrome, *choline salicylate dental gel* produces low levels of salicylate and can therefore be used in children.

Significance of questions and answers

Symptoms

The symptoms of typical indigestion include poorly localised upper abdominal (the area between the belly button and the breastbone) discomfort, which may be brought on by particular foods, excess food, alcohol or medication (e.g. *aspirin*).

Age

Indigestion is rare in children, who should be referred to the doctor. Abdominal pain, however, is a common symptom in children and is often associated with an infection. OTC treatment is not appropriate for abdominal pain of unknown cause and referral to the doctor would be advisable.

Be cautious when dealing with first-time indigestion in patients aged 45 years or over and refer them to the general practitioner (GP) for a diagnosis. Gastric cancer, while rare in young patients, is more likely to occur in those aged 50 years and over. Careful history taking is therefore of paramount importance here.

Duration/previous history

Indigestion that is persistent or recurrent should be referred to the doctor, after considering the information gained from questioning. Any patient with a previous history of the symptom which has not responded to treatment, or which has worsened, should be referred.

Details of pain/associated symptoms

If the pharmacist can obtain a good description of the pain, then the decision whether to advise treatment or referral is much easier. A few medical conditions that may present as indigestion but which require referral are described below.

Ulcer

Ulcers may occur in the stomach (gastric ulcer) or in the first part of the small intestine leading from the stomach (duodenal ulcer). Duodenal ulcers are more common and have different symptoms from gastric ulcers. Typically the pain of a duodenal ulcer is localised to the upper abdomen, slightly to the right of the midline. It is often possible to point to the site of pain with a single finger. The pain is dull and is most likely to occur when the stomach is empty, especially at night. It is relieved by food (although it may be aggravated by fatty foods) and antacids.

The pain of a gastric ulcer is in the same area but less well localised. It is often aggravated by food and may be associated with nausea and vomiting. Appetite is usually reduced and the symptoms are persistent

Mode of travel/length of journey

Details of the journey to be undertaken are useful. The estimated length of time to be spent travelling will help the pharmacist in the selection of prophylactic treatment, since the length of action of available drugs varies.

Once vomiting starts there is little that can be done, so any medicine recommended by the pharmacist must be taken in good time before the journey if it is to be effective. The fact that it is important that the symptoms are prevented before they can gain a hold should be emphasised to the parents. If it is a long journey, it may be necessary to repeat the dose while travelling and the recommended dosage interval should be stressed.

The pharmacist can also offer useful general advice about reducing motion sickness according to the method of transport to be used. For example, children are less likely to feel or be sick if they can see out of the car, so appropriate seats can be used to elevate the seating position of small children. This seems to be effective in practice and is thought to be because it allows the child to see relatively still objects outside the car. This ability to focus on such objects may help to settle the brain's receipt of conflicting messages.

For any method of travel, children are less likely to experience symptoms if they are kept occupied by playing games as they are therefore concentrating on something else. However, again, it seems that looking outside at still objects remains helpful and that a simple game, e.g. 'I spy', is better than reading in this respect. In fact, for many travel sickness sufferers, reading exacerbates the feeling of nausea.

Medication

In addition to checking any prescription or OTC medicines currently being taken, the pharmacist should also enquire about any treatments used in the past for motion sickness and their level of success or failure.

Management

Prophylactic treatments for motion sickness, which can be bought OTC, are effective and there is usually no need to refer patients to the doctor.

Anticholinergic activity is thought to prevent motion sickness and forms the basis of treatment by anticholinergic agents (e.g. *hyoscine*) and antihistamines, which have anticholinergic actions (e.g. *cinnarizine* and *promethazine*).

Antihistamines

Antihistamines include *cinnarizine*, *meclozine* and *promethazine*. Anticholinergic effects are thought to be responsible for the effectiveness

Diarrhoea

Community pharmacists may be asked by patients to treat existing diarrhoea or to offer advice on what course of action to take should diarrhoea occur, e.g. to holidaymakers. Diarrhoea is defined as an increased frequency of bowel evacuation, with the passage of abnormally soft or watery faeces. The basis of treatment is electrolyte and fluid replacement; in addition, antidiarrhoeals are useful in adults and older children.

What you need to know

Age

Infant, child, adult, elderly

Duration

Severity

Symptoms, associated symptoms

Nausea/vomiting

Fever

Abdominal cramps

Flatulence

Other family members affected?

Previous history

Recent travel abroad?

Causative factors

Medication

Medicines already tried

Other medicines being taken

Significance of questions and answers

Age

Particular care is needed in the very young and the very old. Infants (younger than 1 year) and elderly patients are especially at risk of becoming dehydrated.

Symptoms in the Pharmacy, 6th edition. By Alison Blenkinsopp, Paul Paxton and John Blenkinsopp. Published 2009 by Wiley-Blackwell. ISBN: 978-1-4051-8079-5.

Aggravating factors

Stress appears to play an important role and can precipitate and exacerbate symptoms.

Caffeine often worsens symptoms and its stimulant effect on the bowel and irritant effect on the stomach are well known in any case.

The sweeteners sorbitol and fructose have also been reported to aggravate IBS. Other foods that have been implicated are milk and dairy products, chocolate, onions, garlic, chives and leeks.

Medication

The patient may already have tried prescribed or OTC medicines to treat the condition. You need to know what has been tried and whether it produced any improvement. It is also important to know what other medicines the patient is taking. IBS is associated with anxiety and depression in many patients, but it is not known whether this is cause or effect.

When to refer

Children

Older person with no previous history of IBS

Pregnant women

Blood in stools

Unexplained weight loss

Caution in patients aged over 45 years with changed bowel habit

Signs of bowel obstruction

Unresponsive to appropriate treatment

Treatment timescale

Symptoms should start to improve within 1 week.

Management

Antispasmodics

Antispasmodics are the mainstay of OTC treatment of IBS and research trials show some improvement in abdominal pain with smooth muscle relaxants. *Alverine citrate*, *peppermint* and *mebeverine* are used. They work by a direct effect on the smooth muscle of the gut, causing relaxation and thus reducing abdominal pain. The patient should see an improvement within a few days of starting treatment and should be asked to return to you in 1 week, so you can monitor progress. It is worth trying a different antispasmodic if the first has not worked. Side-effects from antispasmodics are rare.

irritation of the perianal area but no pain and he has a small swelling, which hangs down from the anus after he has passed a motion, but which he is able to push back again. He is a little constipated, but he is not taking any medicines.

The pharmacist's view

Mr Harris has a previous history of haemorrhoids, which have been diagnosed and treated by his doctor. It is likely that his holiday and temporary change in diet have caused a recurrence of the problem, so he now has a second-degree pile, and it would be reasonable to suggest symptomatic treatment for a few days. You could recommend the use of an ointment preparation containing *hydrocortisone* and skin protectors for up to 1 week and remind Mr Harris that the area should be kept clean and dry. You might consider recommending a laxative to ease the constipation until Mr Harris's diet gets back to normal (you advise that he returns to his usual high-fibre diet) and makes sure his daily fluid intake is sufficient; a small supply of a stimulant laxative (perhaps a stimulant/stool softener such as *docusate sodium*) would be reasonable. He should see his doctor after 1 week if the problem has not cleared up.

The doctor's view

The treatment suggested by the pharmacist should settle Mr Harris's symptoms within 1 week. The treatment is, of course, symptomatic and not curative. If he continues to suffer from frequent relapse, referral should be considered. His doctor could advise whether or not to refer him for injection or removal of the piles.

Case 2

Mr Briggs is a local shopkeeper in his late fifties who wants you to recommend something for his piles. He tells you that he has had them for quite a while – a couple of months. He has tried several different ointments and suppositories, all to no avail. The main problem now is bleeding, which has become worse. In fact he tells you, somewhat embarrassed, that he has been buying sanitary towels because this is the only way he can prevent his clothes from becoming stained. He is not constipated and has no pain.

The pharmacist's view

Mr Briggs should be referred to his doctor at once. His symptoms have a history of 2 months and there must be quite profuse rectal bleeding, which may well be due to a more serious disease. He has already tried some OTC treatments, with no success. His age and the description of his symptoms mean that further investigation is needed.

some *Eumovate* eczema and dermatitis cream for a rash caused by a new deodorant. However, when she got back home and read the patient information leaflet (PIL), she discovered that it should not be used by breastfeeding mothers without medical advice. She had her first baby 4 months ago and is breastfeeding.

The pharmacist's view

I didn't realise that the PIL for *Eumovate* said this about breastfeeding, so this phone call put me on the spot. I thought about the possible risk and decided it was very small. The treatment was going to be used only for a few days and the amount of steroid that might be absorbed through the skin would be absolutely tiny. However, I didn't want to undermine her confidence. I was also a bit worried about where I stood if I gave advice that was different from the PIL. But in the end I decided to use my own judgement. I told her that I would explain why the warning is in the leaflet, would give her my opinion and then see what she wanted to do. I said that if she would prefer it, she could use a simple soothing cream on the rash. I also said that if it was inconvenient for her to come back to the pharmacy, I could arrange for the other cream to be delivered by our prescription delivery van.

The patient's view

I was really worried when I got home and read the leaflet. You don't expect that putting something on a rash might mean you can't breast-feed. I thought maybe something in the cream could be dangerous to my baby. The pharmacist spent time talking it through with me and in the end I decided to go for the soothing cream instead, to be on the safe side.

The doctor's view

It is unlikely that *Eumovate* would cause any problems for the baby, especially as the treatment is going to be very short term. The advice given about corticosteroids and breastfeeding in the *BNF* states that 'maternal doses of up to 40-mg *prednisolone* daily by mouth are unlikely to cause any systemic effects in infants'. As so little of this topical moderate-potency steroid is likely to be absorbed, the chances of any problems are unlikely. It is probable that the warning is included in the PIL because there is no research evidence available in this situation.

cotton socks can facilitate the evaporation of moisture, whereas nylon socks will prevent this.

Foot hygiene

The feet should be washed and carefully and thoroughly dried, especially between the toes, before the antifungal preparation is applied.

Transmission of athlete's foot

Athlete's foot is easily transmitted and is thought to be acquired by walking barefoot, e.g. on changing-room floors in workplaces, schools and sports clubs. There is no need to avoid sports but wearing some form of footwear such as rubber sandals is advisable.

Prevention of reinfection

Care should be taken to ensure that shoes and socks are kept free of fungus. Socks should be changed and washed regularly. Shoes can be dusted with a fungicidal powder to eradicate the fungus. The use of a fungicidal dusting powder on the feet and in the shoes can be a useful prophylactic measure and can also help to absorb moisture and prevent maceration. Patients should be reminded to treat all shoes, since fungal spores may be present.

Ringworm

Ringworm of the body (*tinea corporis*) is a fungal infection, which occurs as a circular lesion that gradually spreads after beginning as a small, red papule. Often there is only one lesion and the characteristic appearance is of a central, cleared area with a red advancing edge (Plate 5). Topical azoles such as *miconazole* are effective treatments for ringworm.

Ringworm of the groin (*tinea cruris*) presents as an itchy red area in the genital region and often spreads to the inside of the thighs. The problem is more common in men than in women and is commonly known as jock itch in the USA. Treatment consists of topical antifungals; the use of powder formulations can be particularly valuable because they absorb perspiration.

Ringworm of the scalp (*tinea capitis*) is most common in pre-adolescent children, although it can occur in adolescents and adults. There may be associated hair loss and affected hairs come out easily (see Plate 6). Treatment is with oral antifungals and referral is required (see also 'Hair loss').

Fungal nail infections (onychomycosis)

Onychomycosis is a fungal infection in which mild cases involve the nail plate and sometimes the nail bed that lies underneath (see Plate 7). A nail lacquer containing 5% *amorolfine* can be used for the

Preparations should be kept well away from the eyes and applied with an orange stick or other applicator, not with the fingers.

Cryotherapy

Dimethyl ether propane can be used to freeze warts and is available in an application system for home use for adults and children over 4. There is little evidence from which to judge its effectiveness in home use rather than when applied by a doctor. The treatment should not be used by people with diabetes or by pregnant women. The wart should fall off about 10 days after application.

Duct tape

Application of a piece of duct tape to the wart has been widely used in the USA and little used in the UK. The tape is left in place for up to 6 days at a time after which the wart is soaked in warm water for 5 min and then gently abraded with an emery board. Treatment takes up to 8 weeks. A randomised controlled trial (RCT) comparing duct tape with OTC cryotherapy found similar effectiveness.

Formaldehyde

Formaldehyde is used for the treatment of verrucae; it is considered to be less suitable for warts on the hands because of its irritant effect on the skin. The thicker skin layer on the sole of the feet protects against this irritant action. A gel formulation is available for the treatment of verrucae and is applied twice a day. Both *formaldehyde* and *glutaraldehyde* have an unpredictable action and are not first-line treatments for warts, though they may be useful in resistant cases.

Glutaraldehyde

Glutaraldehyde is used in a 5 or 10% gel or solution to treat warts; it is not used for anogenital warts and is generally used for verrucae. Its effect on viruses is variable. Patients should be warned that *glutaraldehyde* will stain the skin brown, although this will fade after treatment has stopped.

Practical points

Application of treatments

Treatments containing *salicylic acid* should be applied daily. The treatment is helped by prior soaking of the affected hand or foot in warm water for 5–10 min to soften and hydrate the skin, increasing the action of the *salicylic acid*. Removal of dead skin from the surface of the wart by gentle rubbing with a pumice stone or emery board ensures that the next application reaches the surface of the lesion. Occlusion of the wart using an adhesive plaster helps to keep the skin macerated, maximising the effectiveness of *salicylic acid*.

When to refer

- Alopecia areata
- Suspected drug-induced hair loss
- Suspected hypothyroidism
- Menstrual disorders
- Suspected anaemia

Treatment timescale

Treatment with *minoxidil* may take up to 4 months to show full effect.

Management

Minoxidil

The only treatment licensed for use in hair loss is *minoxidil*, available as a 2 or 5% lotion with the drug dissolved in an aqueous alcohol solution. *Propylene glycol* is included to enhance absorption. The mechanism of action of *minoxidil* in baldness is unknown. The earlier *minoxidil* is used in balding, the more likely it is to be successful. Treatment is most likely to work where the bald area is less than 10 cm in diameter, where there is still some hair present and where the person has been losing hair for less than 10 years. The manufacturers of *minoxidil* say that the product works best in men with hair loss or thinning at the top of the scalp and in women in a generalised thinning over the whole scalp – both manifestations of alopecia androgenetica. Up to one in three users in such circumstances report hair regrowth of non-vellus (normal) hair and stabilisation of hair loss. A further one in three are likely to report some growth of vellus (fine, downy) hair. The final third will not see any improvement.

It is important that patients understand the factors that make successful treatment more or less likely and believe that their expectations are realistic. Some patients may still want to try the treatment, even where the chances of improvement are small.

After 4–6 weeks, the patient can expect to see a reduction in hair loss. It will take 4 months for any hair regrowth to be seen, and some dermatologists suggest continuing use for 1 year before abandoning treatment. Initially, the new hair will be soft and downy but it should gradually thicken to become like normal hair in texture and appearance.

Application

The lotion should be applied twice daily to the dry scalp and lightly massaged into the affected area. The hair should be clean and dry and

When to refer

- Headache associated with injury/trauma
- Severe headache of more than 4-h duration
- Suspected adverse drug reaction
- Headache in children under 12 years
- Severe occipital headache (across the back of the head)
- Headache that is worse in the morning and then improves
- Associated drowsiness, unsteadiness, visual disturbances or vomiting
- Neck stiffness
- Frequent migraines requiring prophylactic treatment
- Frequent and persistent headaches

Treatment timescale

If the headache does not respond to OTC analgesics within a day, referral is advisable.

Management

The pharmacist's choice of oral analgesic comprises three main agents: *paracetamol*, NSAIDs (ibuprofen and *diclofenac*) and *aspirin*. These may be combined with other constituents such as *codeine*, *dihydrocodeine*, *doxylamine* and *caffeine*. OTC analgesics are available in a variety of dosage forms and, in addition to traditional tablets and capsules, syrups, soluble tablets and sustained-release dosage forms are available for some products. The peak blood levels of analgesics are achieved 30 min after taking a dispersible dosage form; after a traditional *aspirin* tablet, it may take up to 2 h for peak levels to be reached. The timing of doses is important in migraine where the analgesic should be taken at the first sign of an attack, preferably in soluble form, since GI motility is slowed during an attack and absorption of analgesics delayed. Combination therapy may sometimes be useful, e.g. an analgesic and decongestant (systemic or topical) in sinusitis.

Sumatriptan 50-mg tablets can be used for acute relief of migraine with or without aura and where there is a 'clear diagnosis of migraine'.

Paracetamol

Paracetamol has analgesic and antipyretic effects but little or no anti-inflammatory action. The exact way in which *paracetamol* exerts its analgesic effect remains unclear, despite extensive research. However, the drug is undoubtedly effective in reducing both pain and fever. It is less irritating to the stomach than is *aspirin* and can therefore be recommended for those patients who are unable to take *aspirin* for

(This is the name given to tissues around joints and where bones move over one another. The function of a bursa is to reduce friction during movement.) Examples of bursitis are housemaid's knee and student's elbow.

Fibromyalgia

Fibromyalgia refers to chronic widespread pain affecting the muscles but not the joints. Tender spots can be discovered in the muscles and the condition can be associated with a sleep disturbance. Brain wave studies often show a loss of deep sleep. This condition may be precipitated by psychological distress and physical trauma. The symptoms can be similar to those of myalgic encephalopathy (encephalomyelitis). Referral to the GP for assessment would be advisable. An empathetic approach from the doctor is important as many patients have felt rejected or that their problems have not been taken seriously by the health professional. Medication (e.g. tricyclics, NSAIDs and *gabapentin*) is of limited benefit in these situations.

Frozen shoulder

Frozen shoulder is a common condition where the shoulder is stiff and painful. It is more prevalent in older patients. The shoulder pain sometimes radiates to the arm and is often worse at night. Patients can sometimes relate the problem to injury, exertion or exposure to cold, but frozen shoulder may occur without apparent cause. The pain and limitation of movement are usually so severe that referral to the doctor is advisable.

Painful joints

Pain arising in joints (arthralgia) may be due to arthritis, for which there are many causes. The pain may be associated with swelling, overlying inflammation, stiffness, limitation of movement and deformity of the joint. A common cause of arthritis is osteoarthritis (OA), which is due to wear and tear of the joint. This often affects the knees and hips, especially in the older population. Another form of arthritis is rheumatoid arthritis (RA), which is a more generalised illness caused by the body turning its defences on itself. Other forms of arthritis can be caused by gout or infection. A joint infection is rare but serious and occasionally fatal. It is often difficult to distinguish between the different causes and it is therefore necessary to refer to the doctor except in mild cases.

Back pain

Lower back pain affects 60–80% of people at some stage in their lives and is often recurrent. Non-serious acute back problems need to be treated early, with mobilisation and exercise thought to be particularly important in the prevention of chronic low back pain. Acute back pain is generally regarded as lasting less than 6 weeks, subacute for