A quarter of adults have not visited the dentist within the last two years and a quarter of adults also admit to not brushing their teeth twice a day. It is unsurprising, therefore, that three in 10 adults say they regularly suffer from dental pain and that is the main reason they do eventually make a dental appointment. So it is likely that sufferers will seek pharmacists’ help when they are looking for pain relief, if they are avoiding going to the dentist, or while they are waiting for an appointment. Ensuring pharmacy teams can recommend the appropriate products and provide useful advice will ensure customers are recommended the most appropriate solution to oral pain.

ROOT OF THE PROBLEM

Toothache is caused by inflammation of the innermost layer of the tooth – the dental pulp, which is made up of sensitive nerves and blood vessels.

This inflammation can be a result of:
- Tooth decay
- A cracked tooth
- Loose or broken fillings
- Receding gums
- Periapical abscess – this occurs in the dental pulp and is the most common type of abscess

Dental pain can also be caused by other conditions where the pulp isn’t affected:
- Periodontal abscess – this occurs between the gum and tooth
- Sore or swollen gums
- Sinusitis – which can cause pain around the upper jaw

The degree of pain felt by the sufferer will be dependent upon the underlying cause. And while pharmacists can recommend something that will provide effective, temporary relief, they also need to advise sufferers to make an appointment with their dentist to resolve the problem.

TOOTH DECAY

Tooth decay is one of the most widespread health problems in the UK with 31 per cent of adults affected. It is caused by a build-up of plaque, a sticky film that covers the teeth and harbours bacteria. These bacteria produce acid that can break down the outer surface of the tooth and can eventually damage the soft pulp.

Tooth decay does not cause any symptoms until it has reached an advanced stage, but left untreated it can lead to cavities, gum disease or dental abscesses. In addition to pain, other symptoms may include: bad breath; tooth sensitivity; an unpleasant taste in the mouth; and grey, brown or black spots on the teeth.

ABSCESSES

A dental abscess is a localised collection of pus in the teeth-supporting structures, or gums, which causes severe throbbing pain.

Abscesses occur when bacteria invade the dental tissue as a result of dental decay. This requires dental treatment, but the pain can be treated temporarily using an OTC product such as Orajel Dental Gel, until a dental appointment.

Pharmacists can also provide useful advice, for example; avoid food or drink that is too hot or cold, eat soft food and avoid flossing the area.

Abscesses can lead to complications such as cysts, so you need to ensure patients see the dentist to avoid further problems.

FILLINGS

Dental fillings (most commonly made of amalgam) fill the cavities caused by tooth decay, to protect it from further deterioration.

If they fall out due to poor bonding, are damaged or weakened (amalgam fillings can last 15 to 20 years) this protection is compromised, leaving the tooth exposed to further decay, pain and sensitivity. The filling will need to be replaced, but in the meantime the area should be kept clean using gentle brushing and mouthwash.

DAMAGED TEETH

Cracked or broken teeth can cause erratic pain, especially when eating or when exposed to temperature extremes. If the enamel is damaged, chewing can cause movement that irritates the pulp, which, as already stated, contains all the blood vessels and nerves.

Broken, chipped or cracked teeth can be repaired, but pain relief may be required until the problem is fixed. Failure to get help can lead to death of the nerve and development of abscesses.

**After reading this module, you will:**
- Understand the prevalence of dental pain
- Have learned the main causes of dental pain
- Be able to provide help and advice for common dental problems
- Be able to recommend the most suitable product from the Orajel range

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2British Dental Health Foundation – https://www.dentalhealth.org/tell-me-about/topic/routine-treatment/different-filling-materials
WISDOM TEETH

Wisdom teeth are the last to appear, usually between the ages of 17 and 25 years, although they can appear much later. Often there will be slight discomfort as they come through. However, if there isn’t enough room, they may get stuck against adjacent teeth and remain at an angle – this is known as an impacted tooth.

If part of the tooth has come through the gum and part remains covered, the gum may become swollen and painful. The pain can be relieved with painkillers, although if the pain and inflammation are severe the affected tooth may need to be removed.

MOUTH ULCERS

Mouth ulcers are painful round sores that typically affect the gums, tongue, roof of the mouth and insides of the cheeks. They can appear alone or in a group and may be a one-off or recur.

Mouth ulcers look like a shallow crater with a white or yellowish interior surrounded by a halo of red, inflamed tissue. Typically, they occur following a trauma – a knock to the mouth while brushing teeth or biting the inside of the cheek while eating.

The main symptom of mouth ulcers is pain, particularly while eating or drinking. This pain may last up to 10 days; however, ulcers usually heal themselves completely within one to three weeks.

DENTURES

New dentures and ill-fitting old dentures can rub on parts of the mouth or gum, causing ulcers and pain. Changes in the gum and jaw over time can mean that dentures no longer fit as snugly as they did when they were first made, so adjustments may be required. And even new dentures may require additional adjustments before they fit properly.

While the solution is to go to the dentist and have the dentures adapted to fit, sufferers will need something to help relieve the pain and discomfort.

BRACES

Dental braces are used as part of orthodontic treatment to straighten crooked, crowded or protruding teeth, close gaps between teeth and improve the bite of teeth to ensure people are able to bite correctly, eat more comfortably and care for the teeth more easily.

Treatment usually lasts 18 months to two years. However, when they are newly fitted or when adjustments are made, they can rub against the cheeks, lips and gums causing inflammation and ulcers.

GINGIVITIS

Inflammation of the gum tissue – gingivitis – is caused by poor oral hygiene. However, as it is not always painful, sufferers may not know they have it.

Early symptoms include red, swollen, bleeding gums. Left untreated it can lead to periodontitis with symptoms including: bad breath; an unpleasant taste in the mouth; loose teeth; and gum abscesses.

Gingivitis can be treated with good oral hygiene: brushing, flossing, mouthwash and regular trips to the dentist. It may also need additional medical and dental treatment.

PAIN RELIEF

OTC analgesics such as paracetamol and ibuprofen are suitable for use in relieving dental pain.

However, while analgesics are effective for relieving pain, customers may not want to take an oral medicine, preferring instead to use a product that brings instant relief and targets the specific site of pain. Moreover, if they are taking prescribed medicines or suffer from other medical conditions, then a topical product like Orajel may be more suitable.

Orajel, a leading toothache brand, has three products in its range, so it is important pharmacists know which one to recommend and when, to ensure customers get the relief they need. Key to this is asking how much pain they are suffering, which will vary depending on the cause and the individual.

Unlike oral analgesics, which take around 20 minutes to work, Orajel is applied directly to the point of pain and provides rapid relief. And because it is specially formulated to give patients control over the product during application, it allows for targeted relief.

Orajel contains the powerful local anaesthetic, benzocaine. It works by reversibly blocking nerve impulses by preventing the movement of sodium ions needed to initiate electrical activity in the nerve, thereby numbing the area of application, and providing rapid relief from pain.

A range of problems can lead to dental discomfort and the majority of them require referral to the dentist, but at least pharmacists can be confident that the Orajel range can rapidly alleviate the pain until the customer can see the dentist to tackle the underlying issue.
The product information below will give you a better understanding of the Orajel range – the No. 1 selling toothache brand in the UK\(^3\). All products can be used from 12 years of age and deliver rapid effective pain relief when and where it’s needed, unlike oral analgesics which can take 20 minutes to work. In addition, because it’s a topical application, it avoids the common side effects some people experience with oral analgesics; it doesn’t interact with other medicines and is ideal for customers who may be wary of taking tablets. Orajel Dental Gel and Orajel Extra Strength are spearmint flavoured, and Orajel Mouth Gel is passion fruit flavoured and sugar free.

**Orajel Extra Strength** – contains 20% benzocaine, twice the concentration of Dental Gel, the maximum concentration allowed without prescription, for rapid relief of acute toothache. It can be used to relieve the pain of broken/cracked teeth or abscesses, for example.

**Orajel Mouth Gel** – contains 10% benzocaine and has been formulated to be used for painful mouth ulcers including those caused by dentures or braces.

**Orajel Dental Gel** – contains 10% benzocaine and can be used to rapidly relieve the pain caused by a broken tooth or a tooth that may require a filling.

\(^3\)Nielsen, value sales, all outlets, 52 w/e 04.07.15.

This section is not covered by the NPA Quality Seal.
CASE STUDY 1

A customer comes into the pharmacy holding his hand up to his face as he winces with pain. He asks you for the strongest thing you have to treat toothache and explains it has been an ongoing issue for a few weeks and that he has not seen his dentist for about a year. He also admits he is not great at brushing his teeth.

You explain to him that **Orajel Extra Strength** is ideal for strong toothache as it can be applied directly to the affected area and, as it contains 20% benzocaine, a local anaesthetic at the maximum dose without a prescription, it will bring rapid relief. You tell him that it can be used up to four times a day for four days, but that he needs to make an appointment with the dentist to resolve the underlying cause of the pain.

CASE STUDY 2

An elderly lady comes into the pharmacy and asks for your help. She needs something to treat mouth ulcers. She explains that she had some new dentures fitted recently but they don’t seem to fit properly and they are rubbing on her gum and inside the mouth. She says she is taking some analgesics for arthritis, but she hasn’t yet tried anything to relieve the pain and discomfort caused by the mouth ulcers.

You advise her to get the dentures adjusted to fit properly and recommend **Orajel Mouth Gel**. It contains 10% benzocaine and will bring relief directly at the site of pain, and as it’s a local anaesthetic, it won’t interfere with other prescribed medication. You explain that it can be used up to four times a day for four days.

CASE STUDY 3

A middle-aged lady comes into the pharmacy clutching a handkerchief. She opens it up to reveal an amalgam filling that has fallen out while she’s been eating her lunch. She asks for your advice, as the tooth feels sensitive and painful.

You explain to her that she will need to make an appointment with the dentist to have the filling replaced (she can discard the old one!). You advise her to keep the area clean by using a mouthwash and brushing gently, and recommend **Orajel Dental Gel**, which contains 10% benzocaine and will work at the site of pain to bring rapid pain relief.

**FACT CHECK**

Reflect on what you have learned about the Orajel range.
Which product would you recommend for:
1. Mild dental pain?
2. Severe dental pain?
3. Mouth ulcers?
ORAJEL EXTRA STRENGTH 20% W/W, ORAJEL MOUTH GEL BENZOCAINE 10% W/W, ORAJEL DENTAL GEL BENZOCAINE 10% W/W PRODUCT INFORMATION. Extra Strength & Dental Gel – For temporary rapid relief of toothache pain associated with presence of open carious lesions and direct exposure of a vital dental pulp; Mouth Gel – For temporary relief from the pain and tenderness associated with mouth ulcers and from wearing dentures.

Dosage: Adults and children aged 12 years and over. For topical oral use. Use up to 4 times daily. Do not use continuously. Do not use Mouth Gel for more than 4 days. If toothache or mouth pain persists, consult your dentist.

Method of use: Extra Strength & Dental Gel – Remove cap. Cut off tip of tube on score mark. With a clean finger or swab apply an amount of gel the size of a green pea into the tooth cavity; Mouth Gel – Clean and dry the affected area. Cut off tip of tube on score mark. Apply a thin layer of Orajel Mouth Gel to the areas inside the mouth which are tender or painful.

Contraindications: Known sensitivity to benzocaine or any of the other ingredients. Not to be used in those individuals suspected of lacking the normal ability to convert methaemoglobin to haemoglobin. Do not use if you have a family history of methaemoglobinaemia. Not for use in children below the age of 12 years.

Adverse events: Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Church & Dwight UK Ltd.

Precautions: All products – Orajel is intended for short-term use until a dentist or doctor can be consulted. Do not exceed recommended dose. The product contains sorbic acid which may cause local skin reactions, e.g. contact dermatitis. Avoid drinking hot liquids whilst using Orajel; Mouth Gel – Treatment with benzocaine products such as Orajel Mouth Gel may mask symptoms associated with more serious conditions and may therefore delay appropriate treatment. Do not use continuously.

Interactions: Benzocaine, like other derivatives of para-aminobenzoic acid, inhibits the actions of sulphonamides and therefore should not be used concomitantly with any sulphonamide.

Pregnancy and lactation: There is inadequate evidence of safety of benzocaine in human pregnancy, but it has been in wide use for many years without apparent ill consequences. No clinical data are available on the use of this product during pregnancy and lactation.

Undesirable effects: Application of benzocaine on skin and mucous membranes has resulted in hypersensitivity reactions (burning, stinging, pruritis, erythema, rash and edema), contact dermatitis and methaemoglobinaemia in a few cases in infants, children and adults. If symptoms persist, or are severe, or are accompanied by fever, headache, breathlessness, nausea or vomiting, consult a doctor.

Overdose: Excessive absorption of benzocaine may produce methaemoglobinaemia in infants, children, and adults. The first clinical signs are cyanotic (greyish) skin discolouration (most notably on mucous membranes) and signs of unusual breathing or breathlessness. Methaemoglobinaemia may be treated by the intravenous administration of 1% methylene blue. Treatment of overdose should be symptomatic and supportive.

RRP (ex VAT): Orajel Extra Strength £5.25, Orajel Mouth Gel £3.25, Orajel Dental Gel £3.25.

Legal category: Orajel Extra Strength P; Orajel Mouth Gel & Orajel Dental Gel GSL.

PL holder: Church & Dwight UK Ltd., Premier House, Shearway Business Park, Pent Road, Folkestone, Kent, UK, CT19 4RJ.

PL number: Orajel Extra Strength 00203/0228; Orajel Mouth Gel 00203/0229; Orajel Dental Gel 00203/0227.

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