

# Ear, nose and throat

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For full information on treatment, side effects, cautions and contraindications, see electronic British National Formulary ([www.bnf.org](http://www.bnf.org)) or the relevant summary of product characteristics ([www.medicines.org.uk](http://www.medicines.org.uk)).

For information on preparing intravenous medicines for administration, see Medusa Injectable Medicines Guide for the NHS (see Clinical Guidance home page)

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## 1. Otitis externa and otitis media

Otitis externa and non-cholesteatomatous chronic suppurative otitis media are usually best treated with topical medication. This may not be effective if the ear canal is full of debris. Application of ear drops may be difficult and a spray may give better distribution. If drops are used it may be necessary for the patient to lie with the affected ear uppermost and then fill the ear canal with the appropriate drops. Following administration of drops the tragus should be massaged to help distribute the drugs.

A topical combination product (anti-infective and steroid) is recommended if infection is present. For otitis externa, treatment is recommended for 2 weeks. For otitis media, the condition should be re-assessed after one week of treatment.

**Sofradex® (dexamethasone 0.05%, framycetin 0.5%, gramicidin 0.005%) ear drops**

Apply 2 to 3 drops, into the affected ear(s), three times a day.

Or

**Otomize® (dexamethasone 0.1%, neomycin 3250 units/ml, glacial acetic acid 2%) ear spray**

Apply 1 metered spray, to the affected ear(s), three times a day.

If there are supply issues with Sofradex® consider Gentisone® HC (hydrocortisone acetate 1%, gentamicin 0.3%) ear drops as an alternative.

**Secondary care only**

**Astringent**

It is often difficult to deliver treatment to the affected area if the patient's ear canal gets too swollen. If this occurs, an astringent can be beneficial.

**Glycerin & Ichthammol BPC (unlicensed)**

This is used to reduce oedema. It is used when there is a swollen ear canal.

Apply the solution to a dressing and pack the ear canal

Or

**Aluminium acetate ear drops 13% (unlicensed)** apply on a gauze wick that is inserted into the ear (the wick should be kept saturated with the ear drops). Used to dry up a moist area.

**Prescribing within an ear clinic**

**Betnovate N® ointment (betamethasone 0.1% neomycin sulphate 0.5%)**

Apply thinly 1-2 times daily

Or

**Trimovate® cream (clobetasone butyrate 0.05%, oxytetracycline 3%, nystatin 100,000units/g)** Apply thinly 1-2 times daily

Or

**Synalar® cream (fluocinolone acetonide 0.025%,)**

Apply thinly 1-2 times daily, reducing strength as condition responds.

**For Pseudomonas spp infections**

**Ofloxacin 0.3% eye drops** (use in the ear is unlicensed) Apply 2 to 3 drops, to the affected ear(s), three times a day.

**Patients with grommets**

Where otorrhea occurs in patients with grommets a topical anti-infective/ steroid preparation is recommended for 1 week, refer to an ENT specialist if discharge persists after treatment. It may be necessary to use topical and systemic antibiotics if symptoms of infection persist

## 2. Ear wax — removal

Wax only needs to be removed if it causes discomfort, deafness or interferes with the function of the eardrum. It may disperse spontaneously following use of wax-softening ear drops.

Wax may be removed by syringing with warm water and may be softened first with olive oil or sodium bicarbonate ear drops if necessary. Syringing is not recommended in the presence of perforations. Other proprietary preparations contain organic solvents which can cause irritation of the meatal skin, and are no more effective than olive oil or sodium bicarbonate.

**Olive oil** Put 3 to 4 drops into the affected ear(s) three to four times a day for 3 to 5 days. Allow the drops to warm to room temperature before use. Patients should lie down on their side. Following application, advise patients to wait for 5 to 10 minutes before standing.

*Or*

**Sodium bicarbonate ear drops 5%** Put 3 to 4 drops into the affected ear(s) three to four times a day for 3 to 5 days. Allow the drops to warm to room temperature before use. Patients should lie down on their side. Following application, advise patients to wait for 5 to 10 minutes before standing.

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## 3. Rhinitis

Rhinitis may be allergic or non-allergic in aetiology. If there is a history suggestive of allergy, then an antihistamine, either topical or systemic (see section 7 ["Allergy"] of Respiratory section of the formulary) should be used first line. If there is only a partial response, a topical steroid should be added in.

If there is no suggestion of atopy, a topical steroid should be used.

First choice

**Beclometasone aqueous nasal spray (50micrograms per spray)** Apply 2 sprays into each nostril twice a day; reduce to 1 spray in each nostril twice daily when symptoms are controlled; (max: 8 sprays daily)

Second choice (after a trial with beclometasone lasting at least 6 weeks)

**Mometasone nasal spray (50micrograms per spray)** Apply 2 sprays (100micrograms) into each nostril once daily; reduce to 1 spray in each nostril daily when symptoms are controlled; max: 4 sprays into each nostril daily.

For ENT use only

**Fluticasone nasal drops (400 micrograms per nasule)** Apply 6 drops (ie, half a nasule; 200 micrograms) into each nostril once or twice daily.

For post nasal drip of catarrh

**Saline douche** (e.g. various proprietary preparations available to purchase over the counter)

## 4. Nasal polyps and post nasal surgery

Fluticasone is often used post nasal surgery and for nasal polyps. Treatment with fluticasone nasal drops is usually given for 3 to 4 weeks followed by the nasal spray for a further 2 to 3 months (possibly long term). The nasal drops are sometimes used alone for 6 weeks

**Fluticasone nasal drops (400 micrograms per nasule)** Apply 6 drops (ie, half a nasule; 200 micrograms) into each nostril twice daily.

Then, at consultant's discretion, replace with any steroid nasal spray licensed for nasal polyps — e.g.

**Mometasone nasal spray (50micrograms per spray)** Apply 2 sprays (100micrograms) into each nostril once daily; reduce to 1 spray in each nostril daily when symptoms are controlled; max: 4 sprays into each nostril daily

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## 5. Nasal congestion

All nasal decongestants contain sympathomimetic vasoconstrictor drugs. They are suitable **ONLY for SHORT TERM USE** (up to 7 days) as they cause rebound congestion which can lead to habituation and overuse.

First choice

**Ephedrine 0.5% nasal drops** Put 1 to 2 drops into each nostril 3 or 4 times daily when required for up to 7 days

Second choice

**Xylometazoline 0.1% nasal drops** Put 2 to 3 drops into each nostril 2 to 3 times daily for up to 7 days.

Before prescribing oral decongestants consider if the benefits outweigh the risks.

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## 6. Facial surgery — post surgical prophylaxis of infection

**Secondary care only**

**Chloramphenicol 1% eye ointment** Apply to wounds post operatively twice daily for up to 7 days.

Or

**Mupirocin 2% cream (Bactroban ®)** Apply 3 times daily for up to 7 days

**Treatment of hypertrophic and keloid scars**

**Triamcinolone acetonide 10mg in 1ml injection (unlicensed)** Inject into the affected area monthly for 4-6 weeks

## 7. Oral hygiene and prevention of oral infection

Superficial infections of the mouth are often helped by warm mouthwashes. A warm saline mouthwash can alleviate pain (eg, due to ulceration) and to cleanse the mouth. For this, half a teaspoon of salt is dissolved in a glass of warm water.

Prior to mouth surgery

Pre-operative use of **Chlorhexidine gluconate 0.2% mouthwash** Rinse mouth with 10mL (hold in mouth for about one minute) prior to procedure (do not swallow).

To remove unpleasant tastes from the mouth

**Mouthwash tablets (Thymol)** Dissolve one tablet in a glass of warm water and gargle.

To prevent infection in the immunocompromised, and in denture stomatitis.

**Chlorhexidine gluconate 0.2% mouthwash** Rinse mouth with 10mL (hold in mouth for about one minute) twice daily; for immunocompromised patients use four times daily (do not swallow).

Furred / coated tongue (in hospital only)

**Ascorbic acid 1g effervescent tablet** Allow  $\frac{1}{4}$  of a tablet to dissolve on the tongue up to four times daily for one week.

**NOTE: 1g ascorbic acid effervescent tablets are not available on NHS prescriptions in primary care.**

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## 8. Dry mouth

Dry mouth may be caused by drugs with antimuscarinic (anti-cholinergic) side effects, including antispasmodics (e.g. hyoscine butyl-bromide), tricyclic antidepressants, some antipsychotics and opioid analgesics. Where possible the prescription should be reviewed and alternative therapies used if appropriate.

Dry mouth may be relieved in some patients by simple general measures including taking regular sips of fluid, sucking ice cubes and eating pineapple chunks.

First choice

**Artificial Saliva** (eg, **AS Saliva Orthana®** Spray 2 to 3 times into the mouth and throat when required, **Saliveze® spray** Spray once into the mouth when required)

Second choice

**Biotene Oralbalance® gel** Apply to gums and tongue as required.

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## 9. Treatment of sore mouth and oral ulceration

This can be categorised as:

- i) Mild ulceration
- ii) Severe ulceration and painful conditions of the oropharynx
- iii) Extensive ulceration
- iv) Mucositis and severe oesophageal ulceration post head and neck radiotherapy

### ***i) Mild ulceration***

**Choline salicylate gel** Apply ½ inch of gel with gentle massage to the affected area(s) every three or four hours. Maximum 6 applications daily.

### ***ii) Severe ulceration and painful conditions of the oropharynx***

First choice

**Benzydamine 0.15% oral rinse** Rinse or gargle, using 15mL (diluted with water if stinging occurs), every 1½ to 3 hours as required; usually for not more than 7 days

Or

**Benzydamine 0.15% spray** 4 to 8 sprays onto affected area every 1½ to 3 hours as required.

Corticosteroids

**First line**

**Betamethasone 500micrograms (Betnesol® soluble tablets) (unlicensed use)**

Dissolve 500 microgram tablet in 20mls of water and rinse around the mouth four times daily, not to be swallowed.

**Second Line**

**Hydrocortisone 2.5mg pellets** Allow one lozenge to dissolve slowly in the mouth in contact with the ulcer 4 times daily.

**NOTE: Corticosteroids can exacerbate local infection including candidal infections**

### ***iii) For extensive ulceration***

**Gelclair® Gel (polyvinylpyrrolidone (PVP), sodium hyaluronate) 15mL sachets**

Dilute contents of one sachet with 40mL of water and use as a mouthwash three times a day or as required; use immediately after dilution; rinse around the mouth for at least one minute and spit out. Avoid eating or drinking for at least 20 minutes following treatment.

***iv) Mucositis and severe oesophageal ulceration post head and neck radiotherapy.***

**Sucralfate suspension** 1g in 5ml (**unlicensed use of licensed preparation**), orally, four times daily an hour before meals and at bedtime

or

**Oxetacaine and antacid suspension (unlicensed)** 5ml, orally, four times daily.

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## **10. Fungal infections of the mouth and throat**

Fungal infections of the mouth are usually caused by *Candida* spp. Fluconazole is now more cost effective than nystatin so should be used first line. However, since fluconazole

can interact with some chemotherapy treatments, nystatin is used primarily for these patients.

First choice

**Fluconazole** 50mg, orally, once daily for 7 days

Second choice (first choice in haematology)

**Nystatin oral suspension 100,000 units/mL** Swish 1mL around the mouth then swallow four times daily after food; continue for 48 hours after the lesions have resolved (usually for 7 days). Dose may be increased to 5ml in severe cases.

Or

**Miconazole oral gel 24mg/mL** Place 5mL to 10mL in the mouth after food and retain near lesion four times daily (continue for 48 hours after the lesions have resolved).

Miconazole oral gel may be more effective than nystatin but it can be difficult to apply and retain near the lesions.

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## 11. Epistaxis

**Naseptin® Nasal Cream (chlorhexidine 0.1%, neomycin 0.5%)** Apply to each nostril three times daily for two weeks.

Contains arachis oil (peanut oil). Do not use in patients with peanut allergy or soya allergy.

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## 12. Oral bleeding

Following oral surgery when a patient has experienced oral bleeding

**Secondary care only**

**Tranexamic acid 5% mouthwash (unlicensed, extemporaneously prepared)**

10ml to be used as a mouthwash 3-4 days daily for 7 days, do not swallow

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## 13. Local anaesthesia prior to dental injections

In paediatric or anxious patients where it is necessary to numb the gum prior to injecting a local anaesthetic use

**Benzocaine 20% gel (Ultracare®)** Apply a small amount, topically, stat, prior to injection.