PHC Chapter 19: Ear, nose and throat conditions

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19.1 ALLERGIC RHINITIS

J30.0-4

DESCRIPTION

Inflammation of the mucous membranes of the nose and paranasal sinuses in response to an allergen e.g. pollen, house dust, grasses, and animal hair.

Allergic rhinitis is characterised by recurrent episodes of:

» blocked stuffy nose
» watery nasal discharge
» frequent sneezing, often accompanied by nasal itching and irritation
» conjunctival itching and watering
» oedematous pale nasal mucosa
» mouth breathing
» snoring at night

Exclude other causes, such as infections, vasomotor rhinitis, overuse of decongestant drops, and side effects of antihypertensives and antidepressants.

GENERAL MEASURES

Avoid allergens and irritants.

MEDICINE TREATMENT

Adults and children > 6 years of age

- Corticosteroid, e.g.: *LoE:III*[380]
- Fluticasone, aqueous nasal solution, 1 spray of 100 mcg in each nostril 12 hourly.
  - Aim the nozzle laterally and upwards (aim for the eye) and not to the back of the throat.
  - Do not sniff vigorously.
  - Review 3 monthly. *LoE:I*[381]

Note: Fluticasone and budesonide interacts with protease inhibitors. Refer all patients on protease inhibitors requiring corticosteroids for further management. *LoE:III*[382]

For short term symptomatic use:

Children

- Chlorphenamine, oral, 0.1 mg/kg/dose 6–8 hourly. See dosing table, pg 23.3.

Adults

- Chlorphenamine, oral, 4 mg, 6–8 hourly.

For relief of nocturnal nasal blockage:

Topical nasal decongestant e.g.:

- Oxymetazoline 0.05%, intranasal, administered at night for a maximum of 5 days.

Long-term antihistamines should only be used after an adequate trial of intranasal corticosteroids and should be added to steroid therapy, if necessary.

For long-term use in adults and school going children:

Children: 2–6 years of age

- Cetirizine, oral, 5 mg once daily. See dosing table, pg 23.3.

Children > 6 years of age and adults
- Non-sedating antihistamine, oral e.g.:
- Cetirizine, oral, 10 mg daily. *LoE:I*[383]

CAUTION
Do not give an antihistamine to children < 2 years of age.

REFERRAL
» Chronic persistent symptoms.
» Severe symptoms.
» Patients on protease inhibitors, requiring nasal corticosteroids.

19.2 COMMON COLD (VIRAL RHINITIS)
J00

DESCRIPTION
Colds are self-limiting viral conditions that may last up to 14 days. Colds begin to clear within 3 days. Colds present with nasal stuffiness and throat irritation.
Malnourished children, the elderly and debilitated patients are at greater risk of developing complications.

Complications
Secondary bacterial infections, including:
» pneumonia
» otitis media
» sinusitis

GENERAL MEASURES
» Limit strenuous activity.
» Ensure adequate hydration.
» Advise patient to return to clinic if earache, tenderness or pain over sinuses develops or symptoms persist for > 14 days.

MEDICINE TREATMENT
Antibiotics are of no value for the treatment of the common cold.

Infants
- Sodium chloride 0.9%, 1–3 drops, instilled into each nostril as required. *LoE:III*[384]

Symptomatic relief of pain and fever with discomfort:

Children
- Paracetamol, oral, 10–15 mg/kg/dose 6 hourly when required. See dosing table, pg 23.8. *LoE:III*[385]

REFERRAL
Severe complications.

19.3 EPISTAXIS
See Section 21.2.7: Nose bleeds (epistaxis).

19.4 OTITIS

19.4.1 OTITIS EXTERNA

H60.0/H60.5/H60.9

DESCRIPTION

Inflammation of the external ear may be one of the following:

» Diffuse: An infection of the ear canal, often due to Gram negative bacilli (especially P. aeruginosa). Pain is increased when chewing and the lining of the canal may be either inflamed or swollen with dry or moist debris or even a white or clear discharge.
» Furuncular: Usually caused by Staphylococcus aureus. A painful localised swelling present at the entrance to the ear canal. May be precipitated by trauma caused by scratching, e.g. matchsticks, earbuds.

GENERAL MEASURES

» Exclude any underlying suppurative otitis media. If suppurative otitis media is
» diagnosed, see Section: 19.4.3 Otitis media, chronic, suppurative.
» Most cases recover after thorough cleansing and drying of the ear.
» Keep the ear clean and dry (dry mopping).
» Do not leave pieces of cotton wool, etc. in the ear.
» Do not instil anything into the ear unless prescribed.

MEDICINE TREATMENT

Diffuse

» Does not usually require an antibiotic
» Make a wick where possible, using ribbon gauze or other suitable absorbent cloth, e.g. paper towel to clean and dry the ear.
- Acetic acid 2% in alcohol, topical, instilled into the ear every 6 hours for 5 days.
  - Instil 3–4 drops after cleaning and drying the ear.

Furuncular

Children

- Cefalexin, oral, 12–25 mg/kg/dose 6 hourly for 5 days. See dosing table, pg 23.3.

OR

- Flucloxacillin, oral, 12–25 mg/kg/dose 6 hourly for 5 days. See dosing table, pg23.5.

Children > 7 years of age and adults

- Cefalexin, oral, 500 mg 6 hourly for 5 days.

OR

- Flucloxacillin, oral, 500 mg 6 hourly for 5 days.

Severe penicillin allergy:

Z88.0

Children

- Macrolide, e.g.:
- Azithromycin, oral, 10 mg/kg daily for 3 days. See dosing table pg 23.2.

Children > 35 kg and adults
- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days.

REFERRAL
No response to treatment.

19.4.2 OTITIS MEDIA, ACUTE
H66.9

DESCRIPTION
Inflammation of the middle ear characterised by:
» pain
» loss of hearing
» red bulging eardrum
» drum perforation
» fever in about half of the cases
» loss of the normal light reflex of the eardrum

Mild redness of the eardrum and rubbing the ear are not reliable signs.

GENERAL MEASURES
» Do not instil anything into the ear.
» Avoid getting the inside of the ear wet.
» Dry mop ear if discharge is present.
» Do not plug the ear with cotton wool, etc.
» Exclude HIV infection as a contributing factor for recurrent ear infection.

MEDICINE TREATMENT
Children
- Amoxicillin, oral, 45 mg/kg/dose 12 hourly for 5 days.

Weight kg	**Dose** mg	**Use one of the following:** **Syrup** mg/ 5mL		**Capsule** mg		**Age** Months/years
		125	250	250	500	
>3.5–5 kg	175 mg	7 mL	3.5 mL	–	–	>1–3 months
>5–7 kg	250 mg	10 mL	5 mL	–	–	>3–6 months
>7–11 kg	375 mg	15 mL	7.5 mL	–	–	>6–18 months
>11–14 kg	500 mg	–	10 mL	2	1	>18 months–3 years
>14–17.5 kg	750 mg	–	15 mL	3	–	>3–5 years
>17.5–25 kg	1000 mg	–	20 mL*	4	2	>5–7 years
>25–30 kg	1250 mg	–	25 mL*	5	–	>7–10 years
>30 kg	1500 mg	–	–	6	3	>10 years

  - Review response after 5 days. *LoE:III*[386]
  - If pain or discharge persists, consider alternative diagnosis and continue antibiotics for a further 5 days. *LoE:III*[387]

Adults
- Amoxicillin, oral, 1500 mg 12 hourly for 5 days. *LoE:III*[388]

Antibiotic treatment for those who have taken amoxicillin in the previous 30 days; or poor response to 10-day course of amoxicillin:

Children

- Amoxicillin/clavulanic acid, oral, 15–25 mg/kg/dose of amoxicillin component, 8 hourly for 5-10 days.

Weight kg	**Dose** mg (amoxicillin component)	**Use one of the following**			**Age** months/years
		Susp 125/31.5 mg/5 mL	**Susp** 250/62.5 mg/5 mL	**Tablet** 500/125 mg/tab	
>3.5–5kg	75 mg	3 mL	1.5 mL	–	>1–3 months
>5–7 kg	100 mg	4 mL	2mL	–	>3–6 months
>7–9 kg	150 mg	6 mL	3 mL	–	>6–12 months
>9–11 kg	200 mg	8 mL	4 mL	–	>12–18 months
>11–14 kg	250 mg	10 mL	5 mL	–	>18 months–3 years
>14–17.5 kg	300 mg	12 mL	6 mL	–	>3–5 years
>17.5–25	375 mg	15 mL	7.5 mL	–	>5–7 years
>25–35 kg	500 mg	20 mL	10 mL	1 tablet	>7–11 years

Children > 35 kg and adults

Amoxicillin/clavulanic acid, oral, 875/125 mg 12 hourly for 5 to 10 days. *LoE:III*[389]

LoE:III[390]

Severe penicillin allergy:

Z88.0

Children

- Macrolide, e.g.:
- Azithromycin, oral, 10 mg/kg daily for 3 days. See dosing table, pg 23.2.

Children > 35 kg and adults

- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days.

Pain:

Children

- Paracetamol, oral, 10–15 mg/kg/dose 6 hourly when required. See dosing table, pg 23.8. *LoE:II*[391]

Adults

- Paracetamol, oral, 1 g 4–6 hourly when required.
  - Maximum dose: 15 mg/kg/dose.
  - Maximum dose: 4 g in 24 hours.

For patients with upper respiratory tract congestion, secondary to allergy: (T78.4)

- Non-sedating antihistamine, oral, e.g.:
- Cetirizine, oral, 10 mg daily for 10 days. *LoE:II*[392]

For management of allergic rhinitis, see section 19.1: Allergic rhinitis.

REFERRAL

» Severe pain, fever or vomiting, not responding to treatment after 72 hours (if otoscopy confirmed) or after 24 hours (if otoscopy unconfirmed).
» Recurrent otitis media.

» Painful swelling behind the ear or tenderness on percussion of the mastoid.
» Suspected meningitis.

19.4.3 OTITIS MEDIA, CHRONIC, SUPPURATIVE

H66.1-3

DESCRIPTION

A purulent discharge from the ear with perforation for > 2 weeks. If the eardrum has been ruptured for ≥ 2 weeks, a secondary infection with multiple organisms usually occurs. Oral antibiotic treatment is generally ineffective.

TB may present with a chronically discharging ear. Consider the diagnosis of TB if other clinical features suggestive of TB are present (e.g. cough, weight loss, failure to thrive, etc.). See Section 17.4: Pulmonary tuberculosis (TB). *LoE:III*[393]

GENERAL MEASURES

» Do not send pus swabs collected from the external ear canal for routine bacterial and fungal MC+S (microscopy, culture and sensitivity) or for microscopy and culture for tuberculosis.
» Explain to patients and caregivers that a chronically draining ear can only heal if it is dry.
» Dry mopping is the most important part of the treatment. It should be demonstrated to the child's caregiver or patient if old enough. Roll a piece of clean absorbent cloth into a wick.
  - Carefully insert the wick into the ear with twisting action.
  - Remove the wick and replace with a clean dry wick.
  - Repeat this until the wick is dry when removed.
» Do not leave anything in the ear.
» Do not instil anything else in the ear.
» Avoid getting the inside of the ear wet while swimming and bathing.
» Check HIV status if unknown.

REFERRAL

» All sick children, vomiting, drowsy, etc.
» Painful swelling behind the ear.
» Ear discharge still present for ≥ 4 weeks, despite dry mopping.
  Note: These referrals do not all require referral to an ENT. They may be referred to a hospital outpatient department for consideration of a topical antibiotic eardrops.
» Any attic perforation.
» Any perforation not progressively improving after 3 months or closed by 6 months, even if dry.
» Moderate or severe hearing loss.

19.5 SINUSITIS, ACUTE, BACTERIAL

J01.0-4/J01.8-9

DESCRIPTION

Bacterial infection of one or more paranasal sinuses that occurs most often after a viral nasal infection or allergic rhinitis.

Bacterial sinusitis is characterised by:

» Deterioration of a common cold after 5–7 days.
» Headache.
» Purulent nasal discharge, especially if unilateral.
» Pain and tenderness over one or more sinuses.
» Nasal obstruction.
» Fever.

Note: Sinusitis is uncommon in children < 5 years of age, as sinuses are not fully developed.

GENERAL MEASURES

Consider HIV in recurrent sinusitis.

MEDICINE TREATMENT

Children ≤ 3 years of age

- Amoxicillin, oral, 45 mg/kg/dose 12 hourly for 5 days.

Weight kg	**Dose** mg	**Use one of the following:**				**Age** Months/years
		Syrup mg/ 5mL		**Capsule** mg		
		125	250	250	500	
>2–2.5 kg	100	4 mL	2 mL	–	–	34–36 weeks
>2.5–3.5 kg	125	5 mL	2.5 mL	–	–	Birth–1 month
>3.5–5 kg	175	7 mL	3.5 mL	–	–	>1–3 months
>5–7 kg	250	10 mL	5 mL	–	–	>3–6 months
>7–11 kg	375	15 mL	7.5 mL	–	–	>6–18 months
>11–14 kg	500	–	10 mL	2	1	>18 months–3 years

Children > 3 years of age

- Amoxicillin, oral, 500 mg 8 hourly for 5 days.

Adults

- Amoxicillin, oral, 500 mg 8 hourly for 5 days.

Severe penicillin allergy:
Z88.0

Children

- Macrolide, e.g.:
- Azithromycin, oral, 10 mg/kg daily for 3 days. See dosing table, pg 23.2.

Children > 35 kg and adults

- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days.

AND

- Oxymetazoline, nose drops, 2 drops in each nostril 6–8 hourly for not more than 5 days continuously.

- Children > 5 years of age: 0.025%
- Adults: 0.05%

LoE:III[394]

AND/OR

- Sodium chloride 0.9%, nose drops, use frequently and in fairly large volumes.

Pain:

Children

- Paracetamol, oral, 10–15 mg/kg/dose 6 hourly when required. See dosing table, pg 23.8.

Adults

- Paracetamol, oral, 1 g 4–6 hourly when required.
  - Maximum dose: 15 mg/kg/dose.
  - Maximum dose: 4 g in 24 hours.

REFERRAL

» Fever lasting > 48 hours.
» Poor response > 5 days.
» Complications, e.g. periorbital cellulitis with periorbital swelling.
» Oedema over a sinus.
» Recurrent sinusitis.
» Meningeal irritation.

19.6 TONSILLITIS AND PHARYNGITIS

J03.0/J03.8-9/J35.0/J02.0/J02.8-9/J31.1-2

DESCRIPTION

A painful red throat and/or enlarged inflamed tonsils. White pus exudates, either spots or patches, may be present. Tender anterior cervical lymphadenopathy may be present.
Viruses cause the majority of cases. Group A beta haemolytic streptococcus causes 20% of pharyngitis/tonsillitis, and may result in rheumatic fever (which can cause serious heart disease) as well as local suppurative complications.
Other clinical features that might suggest streptococcal infection may include palatal petechiae, inflamed tongue mucosal papillae (strawberry tongue), a scarlitiniform (i.e.: rough, diffuse, fine papular) rash.

GENERAL MEASURES

» Homemade salt mouthwash, gargle for 1 minute twice daily:
  - 2.5 mL (½ medicine measure) of table salt in 200 mL lukewarm water.
  - Do not give to children unable to gargle.
» Advise adequate hydration.
» Avoid irritants e.g. vaporubs inserted into nostrils.
» For children < 6 years of age: Soothe the throat with, breastmilk. If not exclusively breastfed, give warm water or weak tea: add sugar or honey and lemon if available.

MEDICINE TREATMENT

Antibiotics are not required for all patients with a sore throat.

Antibiotics to eradicate streptococci must be given to patients presenting with a sore throat who are at risk for rheumatic fever (3–21 years of age) if they have:

» Enlarged tonsils;
PLUS at least one of the following criteria:
- Exudates on their tonsils
- No cough
- No runny nose

LoE:I[395]

- Benzathine benzylpenicillin, IM, single dose.
  - Children < 30 kg: 600 000 IU.
  - Children ≥ 30 kg and adults: 1.2 MU.
  - Dissolve benzathine benzylpenicillin 1.2 MU in 3.2 mL lidocaine 1% without adrenaline (epinephrine) or 3 mL water for injection.

OR

Children

- Amoxicillin, oral, 50 mg/kg daily for 10 days.

Weight kg	Dose mg	Use one of the following				Age Months/years
		Susp		Capsule		
		125 mg/5mL	250 mg/5mL	250 mg	500 mg	
>2–2.5 kg	100 mg	4 mL	2 mL	–	–	>34–36 weeks
>2.5–3.5 kg	150 mg	6 mL	3 mL	–	–	>36 weeks–1 month
>3.5–5 kg	200 mg	8 mL	4 mL	–	–	>1–3 months
>5–7 kg	275 mg	11 mL	5.5 mL	–	–	>3–6 months
>7–11 kg	400 mg	–	8 mL	–	–	>6–18 months
>11–17.5 kg	575 mg	–	11.5 mL	–	–	>18 months–5 years
>17.5–25 kg	750 mg	–	15 mL	3	–	>5–7 years
>25–35 kg	1000 mg	–	20 mL	4	2	>7–11 years
>35kg	2000 mg	–	–		4	>11 years

LoE:I[396]

Adults

- Amoxicillin, oral, 1 000 mg 12 hourly for 10 days.

LoE:III[397]

OR

Children: 18 months–11 years of age

- Phenoxymethylpenicillin, oral, 250 mg 12 hourly for 10 days.

Children > 11 years of age and adults

- Phenoxymethylpenicillin, oral, 500 mg 12 hourly for 10 days.

Severe Penicillin allergy:
Z88.0

Children > 3 years of age
- Macrolide, e.g.:
- Azithromycin, oral, 10 mg/kg daily for 3 days. See dosing table, pg 23.2.

Children > 35 kg and adults
- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days.

Pain:

Children
- Paracetamol, oral, 10–15 mg/kg/dose 6 hourly when required. See dosing table, pg 23.8.

Adults
- Paracetamol, oral, 1 g 4–6 hourly when required.
  - Maximum dose: 15 mg/kg/dose.
  - Maximum dose: 4 g in 24 hours.

REFERRAL

» Any suppurative complications, e.g. retropharyngeal or peritonsillar abscess.
» Tonsillitis accompanied by difficulty in opening the mouth (trismus).
» Recurrent tonsillitis (≥ 6 documented episodes/year) for possible tonsillectomy.
» Suspected acute rheumatic fever.
» Suspected acute glomerulonephritis.
» Heart murmurs not previously diagnosed.