



## PAEDIATRIC ACUTE CARE GUIDELINE

### Otitis Externa

<b>Scope (Staff):</b>	All Emergency Department Clinicians
<b>Scope (Area):</b>	Emergency Department

This document should be read in conjunction with this DISCLAIMER  
<http://kidshealthwa.com/about/disclaimer/>

## Otitis Externa

Otitis externa is an infection of the external ear canal, and is also referred to as “swimmer’s ear”

### Background

- The ear canal guards against infection by producing a protective layer of cerumen (ear wax), which creates an acidic and lysozyme-rich environment. While a paucity of cerumen allows for bacterial growth, an excess can cause retention of water and debris, which can create an environment ideal for bacterial invasion.
- Otitis externa is a common cause of ear pain
- It has a lifetime incidence of 10%
- Peak incidence is in children aged 7-12 years
- It presents more often in summer months when swimming is more common
- It may be secondary to atopic dermatitis, trauma to the ear canal or discharging otitis media
- The organisms involved include *Staphylococcus aureus*, *Pseudomonas* and fungi (e.g. *Aspergillus*). *Candida* is unusual.

### Assessment

- Key features include ear pain and discharge
- No investigations are required

## History

Common symptoms of otitis externa are:

- Ear pain
- Conductive hearing loss
- Feeling of fullness (blockage) or pressure
- Itchiness
- +/- Discharge

## Examination

- The tragus and pinna are exquisitely tender when moved
- The ear canal may be erythematous and dry, or it may have grey or black fungal plaques that resemble fuzzy cotton wool
- Most commonly it is moist and oedematous, and the narrowed ear canal is filled with serous or purulent debris
- Fungal infection is suggested by a “wet newspaper” appearance
- Cerumen (ear wax) is characteristically absent
- By definition, cranial nerve (CN) involvement (i.e. of the CN’s VII and IX-XII) is not associated with simple otitis externa
- Inspect the ear for any foreign body

## Investigations

Ear swabs are not required – they are unhelpful as the organisms grown on culture may or may not be true pathogens

## Differential diagnoses

- Otitis media with rupture of the tympanic membrane

## Management

- Analgesia is most important
- Topical treatment is used rather than oral antibiotics

## Initial management

**Analgesia:**

- Oral paracetamol or ibuprofen
- If a perforation of the tympanic membrane is unlikely (no discharge), a topical analgesia (e.g. Auralgan Otic) can be instilled.

**Ear Toilet:**

- If a perforation of the tympanic membrane is unlikely, the ear can be irrigated with saline to remove debris.

**Ear Drops:**

- Instil a combination antimicrobial/steroid ear drop (e.g. Sofradex, Otodex, Kenacomb)
- If the ear canal is not too narrow to allow medication to flow freely, instil drops directly
- If the ear canal is blocked, insert a dry ear wick and then instil drops down the wick every 6-8 hours. Review and replace wick in 48 hours.

**Keep ear dry:**

- Soft wax earplugs should be used when showering
- No swimming

Persisting infection which is thought to be fungal can be treated with Locacorten-Viaform ear drops, where as more severe cases may require a topical antifungal such as 1% clotrimazole.

Oral antibiotics are not used for treatment or prophylactically

**Further management**

- Following treatment, prophylaxis with 2% acetic acid drops (e.g. Aqua-ear) should be instilled after swimming and showering. These drops can also be used to prevent recurrences.
- The use of a blow dryer on a low setting after swimming to dry the ear canal has been suggested as a preventative measure. No studies have demonstrated the effectiveness of this suggestion.


**Complications**

- Furunculosis of the externa ear is the development of a furuncle (boil) in the outer part of the ear canal and causes extreme pain. Management is with adequate analgesia and systemic (oral) antibiotics (flucloxacillin).
- Cellulitis of the surrounding tissue requires similar treatment.

## Tags

atopic dermatitis, canal, debris, dry, ear, ear ache, ear toilet, erythematous, fungal, hearing, hearing loss, moist, oe, oedema, oedematous, OM, otitis externa, otitis media, pain, perforation, pinna, plaques, purulent, red, sore, swimmers ear, tragus

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