

Otitis Media & Otoscope Training Event

29th April 2026



Welcome

Janice Perkins
Executive Chair
Community Pharmacy Greater
Manchester



Otitis Media & Otoscope Training Event

- *This meeting is supported by Renascience through the purchase of exhibition stand space. Renascience was not involved in the development of the agenda, the speaker or the content of the meeting*
- *This meeting is only open to Health Care Professionals*
- *The training will be delivered by Allied Health Training*

Housekeeping

Phones on
silent



No Fire Alarm
Scheduled



Keeping to
time



Remember to
sign in



Register your
car



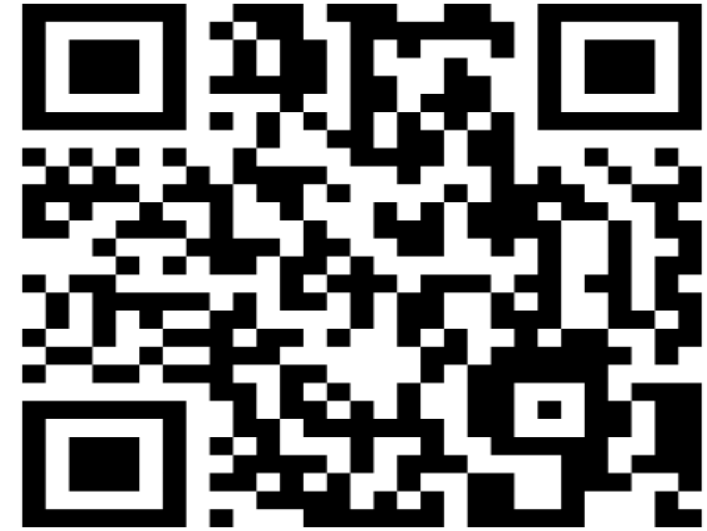
We'll be taking photos and videos throughout the evening.
If you do not wish to be photographed, let us know.



Save the date

- **CPGM Annual Networking Event**
 - Sunday 12th July 2026 – Morning & lunch
 - Venue TBC
- **September Conference**
 - Sunday 20th September 2026 – Full day
 - Venue TBC

Otitis Media



Allied
Health
Training 



@ahtraining1

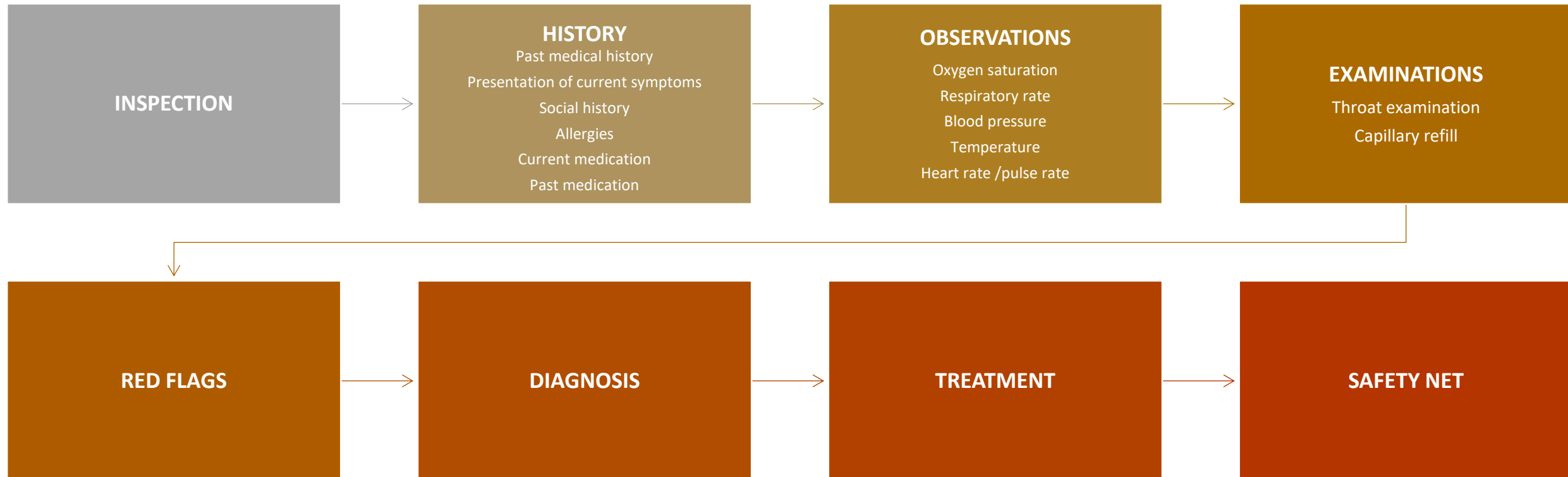


@alliedhealthtraining



Allied Health Training

A Clinical Consultation





Otitis Media



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Health
Training 

What is Otitis Media

- Acute otitis media (AOM) is defined as inflammation in the middle ear associated with an effusion, and rapid onset of symptoms and signs of an ear infection.
- Common condition that can be caused by both viruses and bacteria.
- AOM occurs frequently in children but is less common in adults.
- It is more common in males than females.
- Complications of AOM include recurrence of infection, hearing loss, tympanic membrane perforation,
- In older children and adults, AOM usually presents with earache. Younger children may pull or rub their ear, or may have non-specific symptoms

Otitis Media



Acute otitis media mainly affects children, can last for around 1 week.

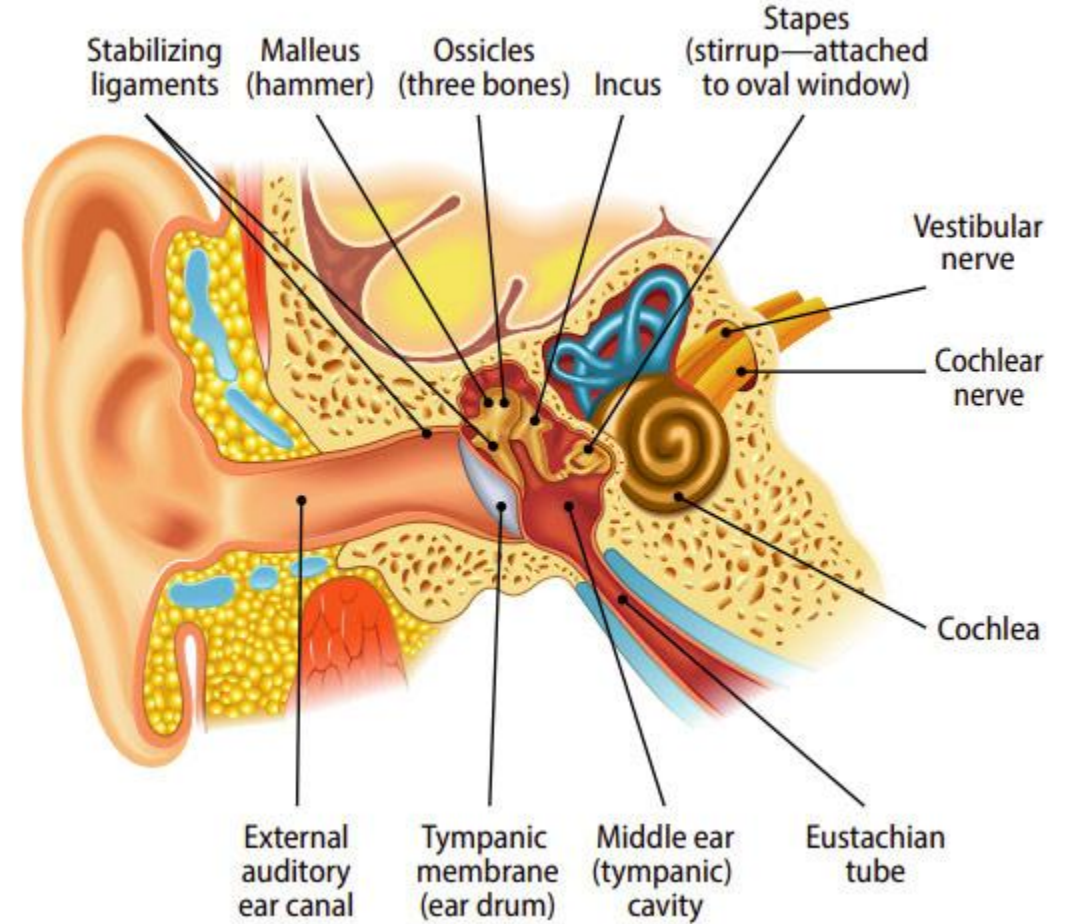


Over 80% of children recover spontaneously without antibiotics, 2-3 from initial presentation.

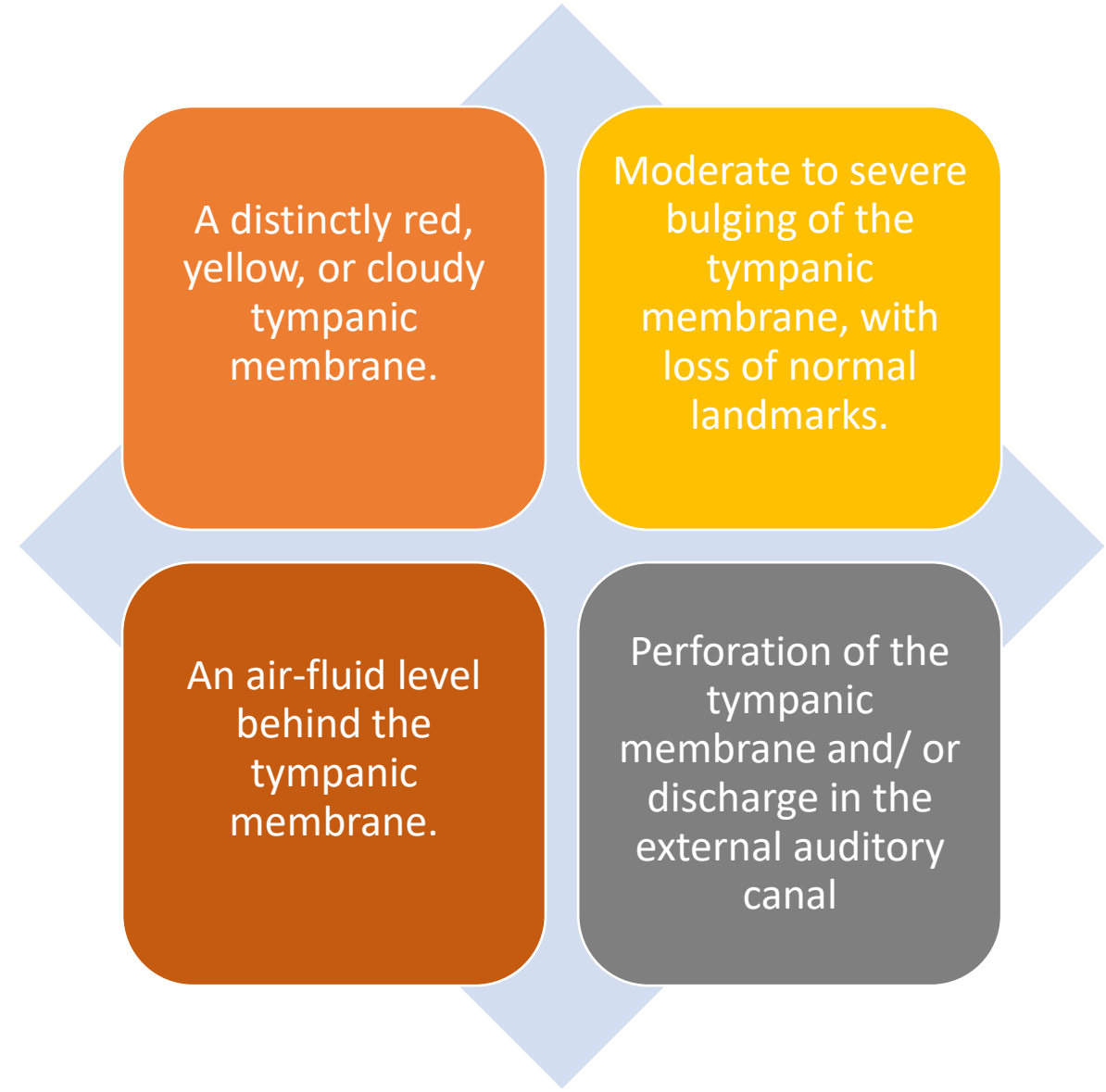


Complications of AOM include recurrence of infection, hearing loss, tympanic membrane perforation, and rarely, mastoiditis, meningitis, intracranial abscess, sinus thrombosis, and facial nerve paralysis.

Anatomy of the ear



On examination with an otoscope

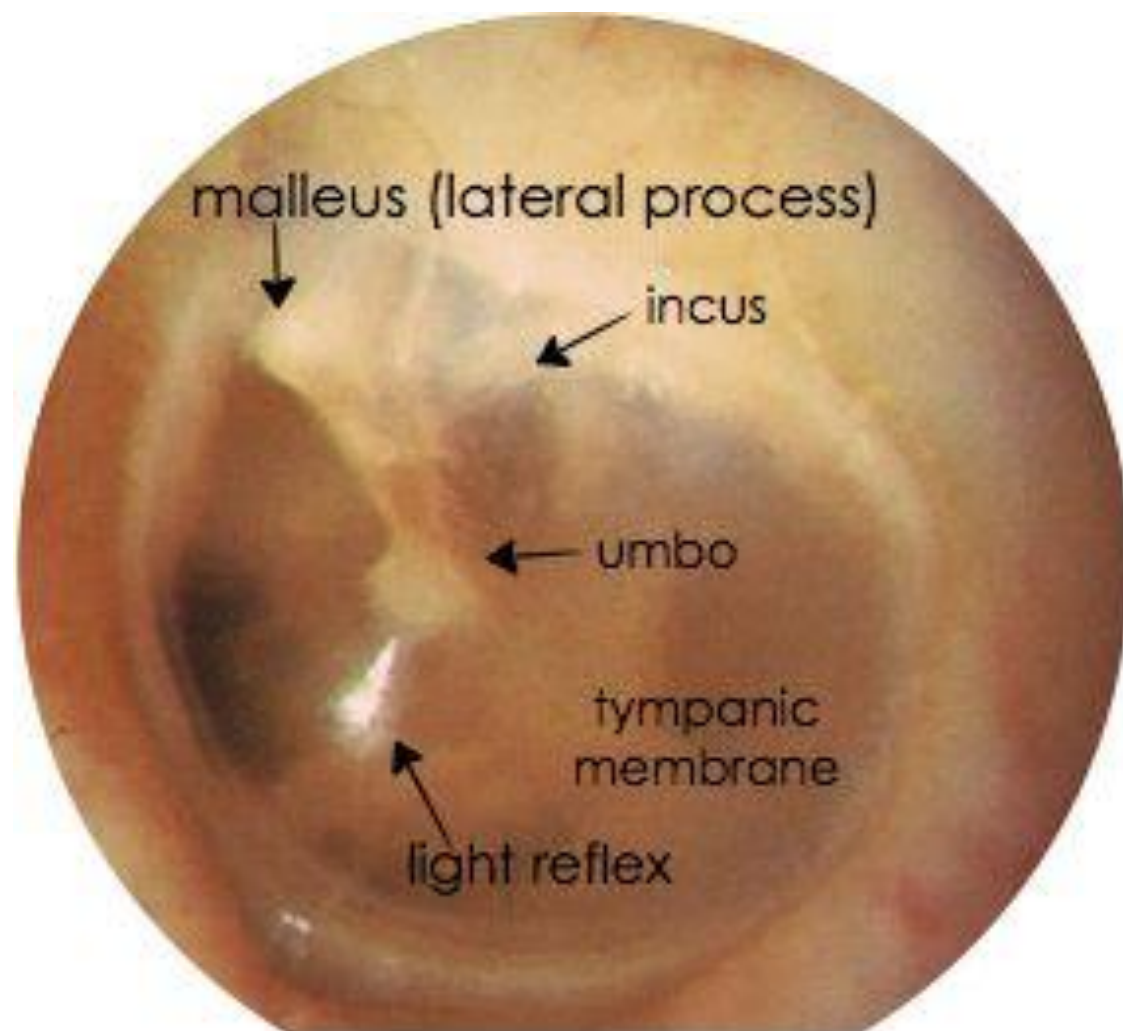




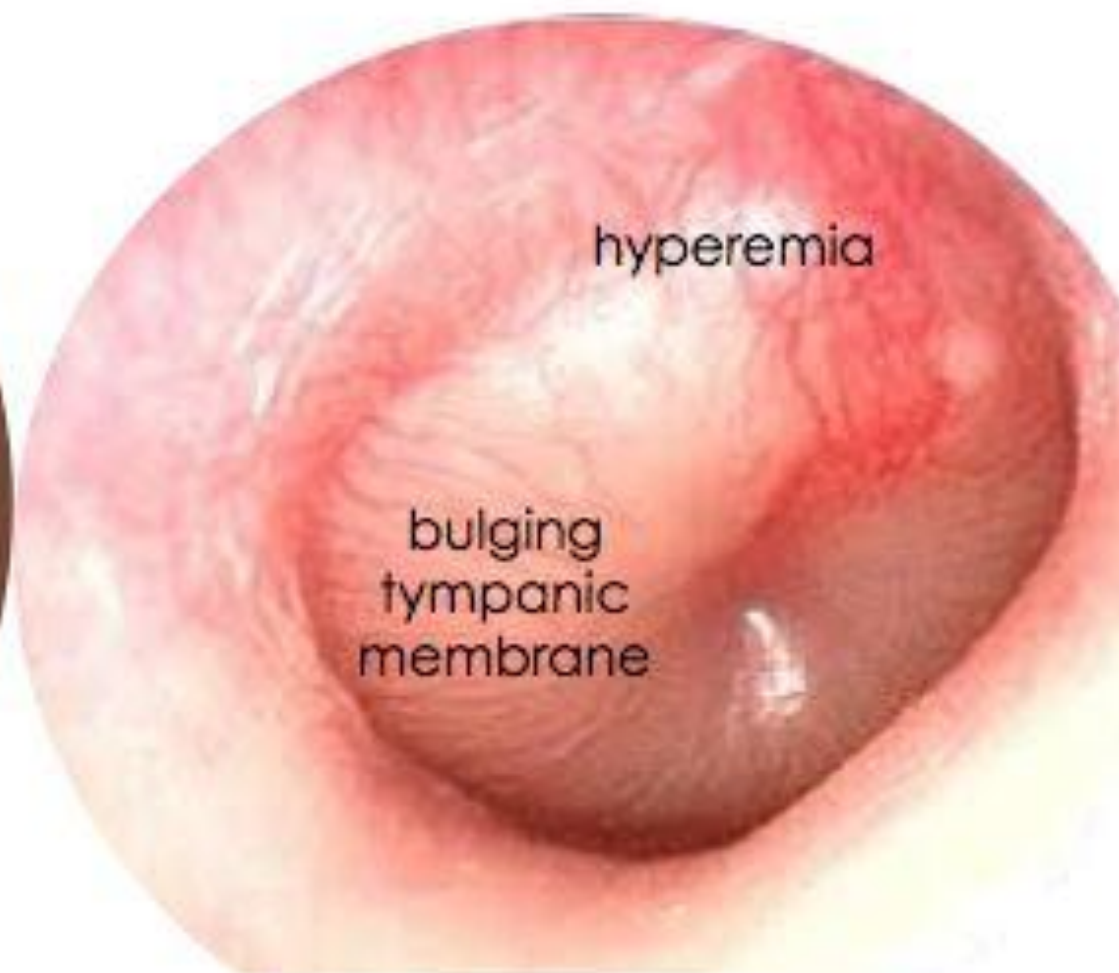
Picture of ear canal completely blocked with wax



Picture of ear canal cleared with ear drum clearly visualised



Normal



Acute Otitis Media



Normal Eardrum



Acute Otitis Media (ear infection)



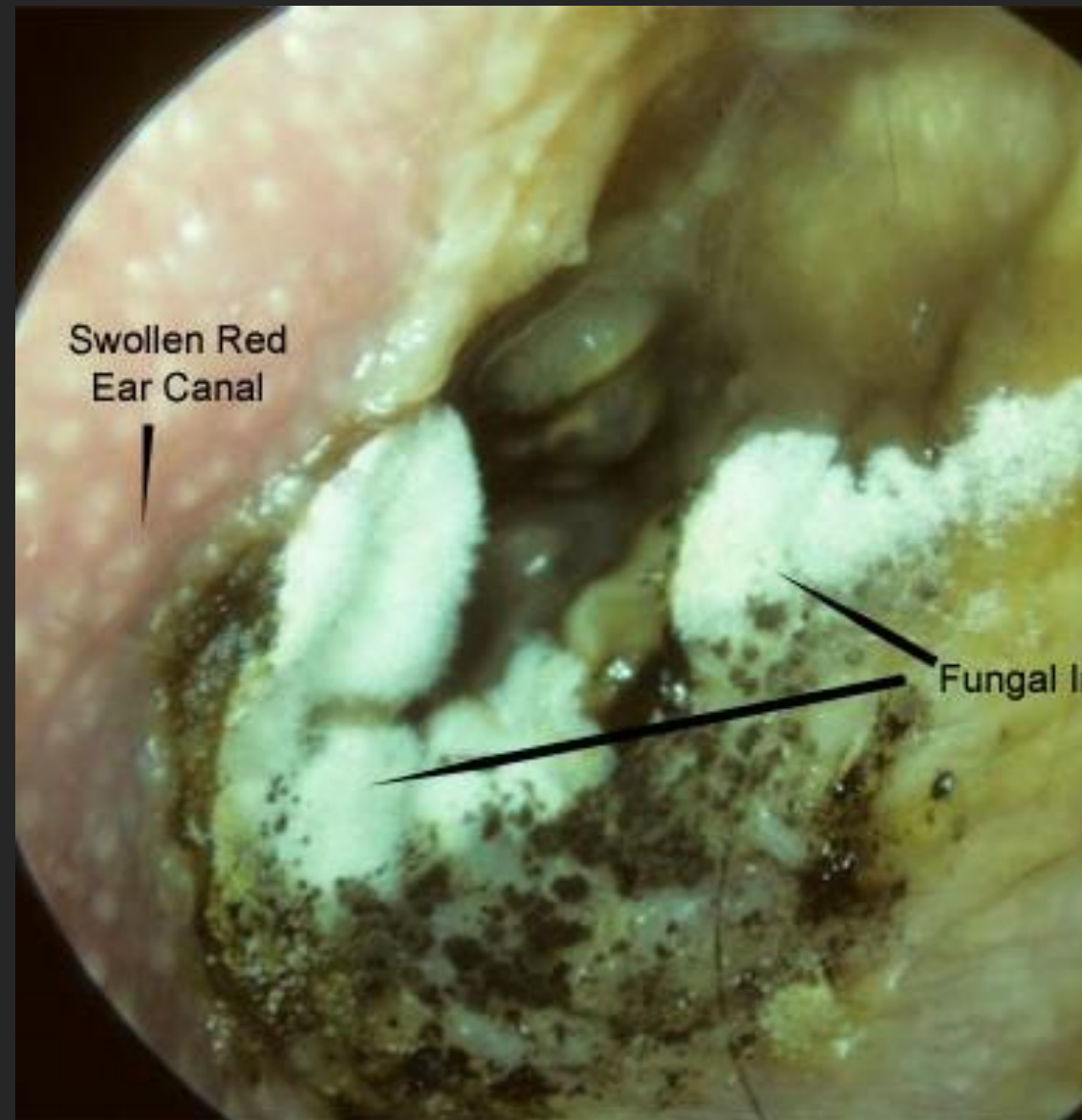
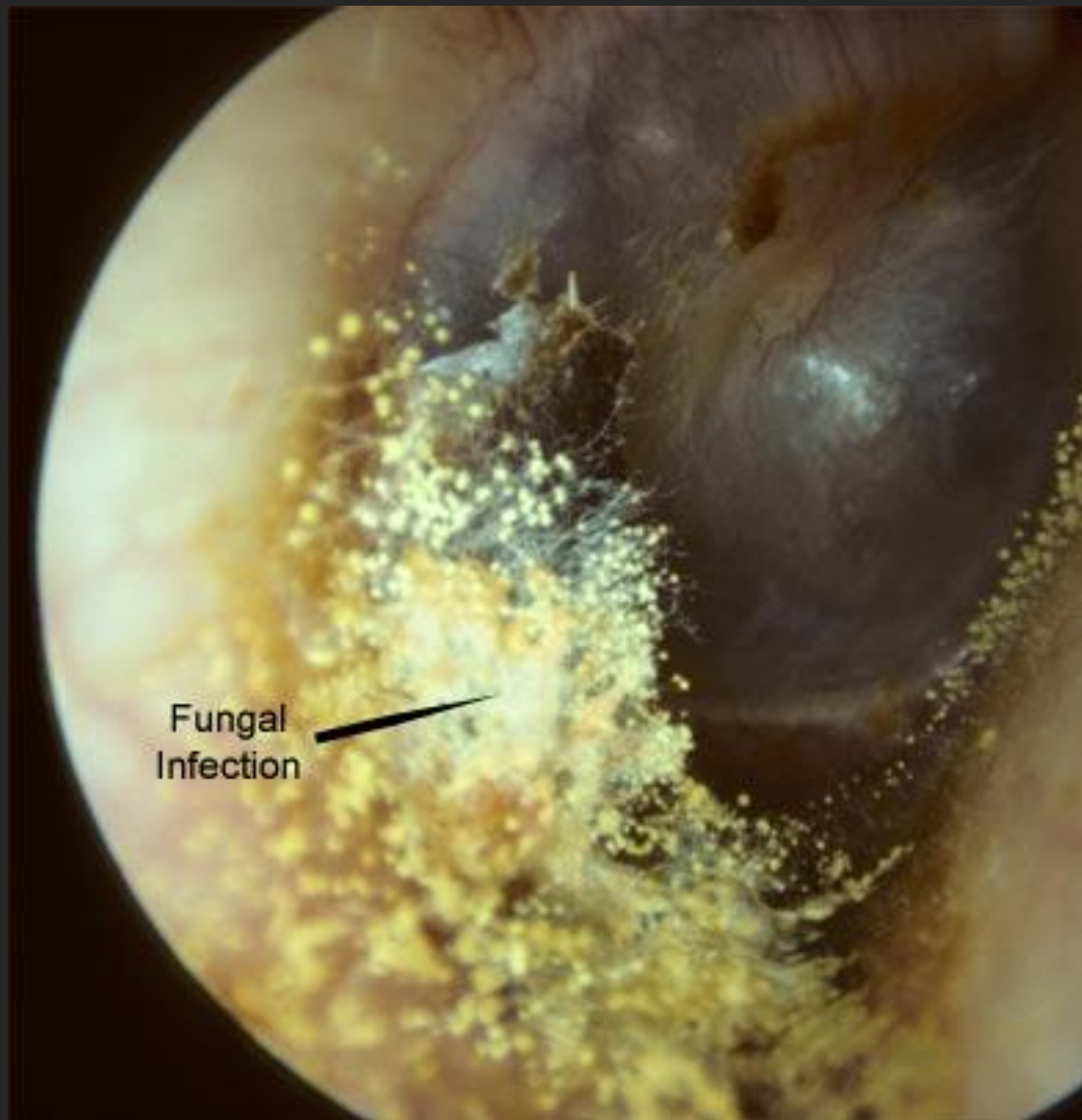
Normal Ear
(no fluid)



Some Fluid
(air-fluid levels)



Effusion
(full of fluid)



Red Flags (and exclusions)..



THINK SEPSIS: CALCULATE NEWS2 SCORE AND CALL 999 IF YOU DEEM IN A LIFE-THREATENING EMERGENCY.



MENINGITIS (NECK STIFFNESS, PHOTOPHOBIA, MOTTLED SKIN)



MASTOIDITIS (PAIN, SORENESS, SWELLING, TENDERNESS BEHIND THE AFFECTED EAR(S))



BRAIN ABSCESS (SEVERE HEADACHE, CONFUSION OR IRRITABILITY, MUSCLE WEAKNESS)



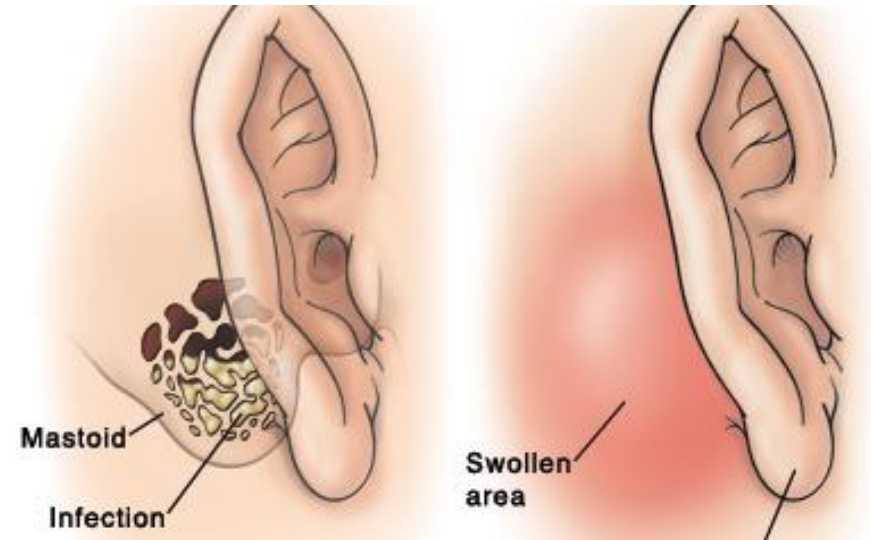
SINUS THROMBOSIS (HEADACHE BEHIND OR AROUND THE EYES)



FACIAL NERVE PARALYSIS

Signpost patient to A&E or call 999 in a life-threatening emergency

Mastoiditis



Inclusion Criteria for Pharmacy First PGD

Informed consent

Individuals aged 1 year and over and under 18 years of age

Signs and symptoms of acute otitis media using the appropriate NICE CKS guidance (see following slides)

And on otoscopic examination (see following slides)

Pain not adequately controlled with regular doses of (over the counter) paracetamol or ibuprofen, using a dosing schedule appropriate for the age and weight of the child.

Individuals with moderate – severe symptoms (see clinical pathway)

Exclusion Criteria for Pharmacy First PGD

- Individuals under 1 year of age or over 18 years of age
- Pregnancy/suspected pregnancy in individuals under 16 years of age
- Severely immunosuppressed individuals as defined in Chapter 28a Green book
- Individuals with mild symptoms: Return to Community Pharmacy within 3-5 days if no improvement for pharmacist reassessment.
- Known perforation of the tympanic membrane (i.e. perforated or “burst” eardrum) (Individuals with evidence of, or suspected, foreign body in the ear canal of the affected ear(s))
- Individuals with recurrent infection

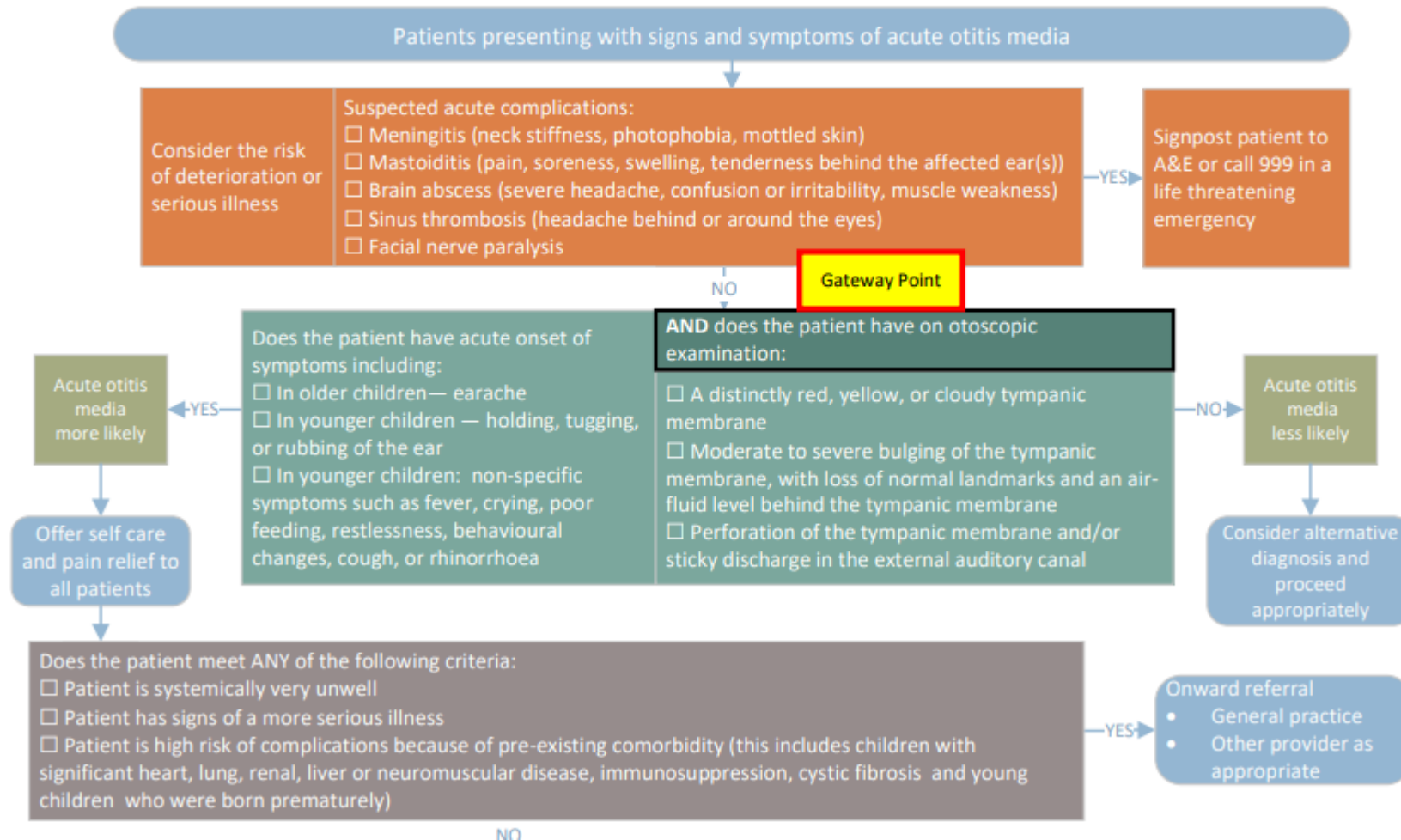


Pharmacy First Clinical Pathway

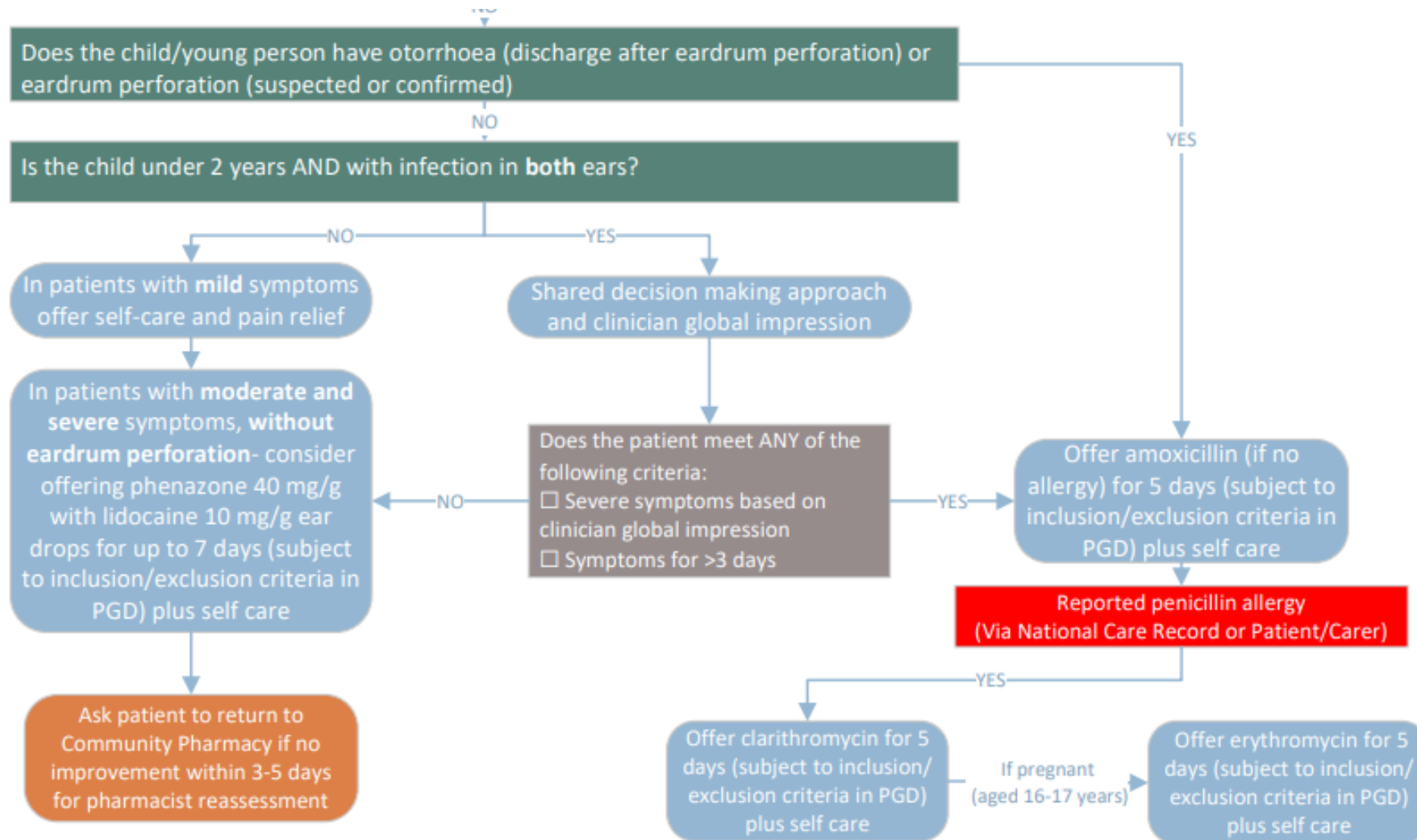
Acute Otitis Media (For children aged 1 to 17 years)

Exclude: recurrent acute otitis media (3 or more episodes in 6 months or four or more episodes in 12 months), pregnant individuals under 16 years

Acute otitis media mainly affects children, can last for around 1 week and over 80% of children recover spontaneously without antibiotics 2-3 days from presentation



Pharmacy First Clinical Pathway



Management

If no otorrhoea, is not under 1 year and no infection in both ears, supply of Otigo (phenazone 40mg/lidocaine hydrochloride 10mg/g) ear drops for up to 7 days

If otorrhoea or suspected/confirmed eardrum perforation, prescribe amoxicillin as the first-choice antibiotic if no allergy - for 5 days

If there is a true penicillin allergy, clarithromycin is an alternative - for 5 days

Prescribe erythromycin for a pregnant woman with penicillin allergy - for 5 days

Otigo (phenazone 40mg/lidocaine hydrochloride 10mg/g)

Children >1 year <18 years: Four drops up to TDS
Treatment duration = until symptoms have resolved up to a maximum 7 days

Amoxicillin capsules/oral solution/oral suspension

1st line (if no penicillin allergy)
Treatment duration = 5 days
Children 1-4 years: 250mg TDS
Children 5-17 years: 500mg TDS

The Patient Group Directions (PGDs)

Clarithromycin tablets/oral suspension/oral solution

If true penicillin allergy and not pregnant
Treatment duration = 5 days
Children 1-11 years - body weight:
- up to 8 kg: 7.5 mg/kg BD
- 8–11 kg: 62.5 mg BD
- 12–19 kg: 125 mg BD
- 20–29 kg: 187.5 mg BD
- 30–40 kg: 250 mg BD
Children 12–17 years and adults: 500mg BD

Erythromycin tablets/oral suspension/oral solution

If true penicillin allergy and pregnant
Treatment duration = 5 days
Young people aged 16 or 17 years: 500mg QDS



Self Care



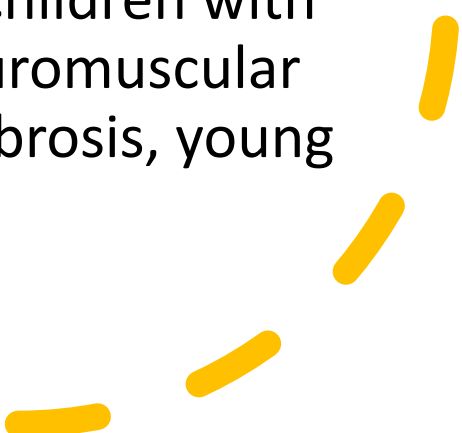
Adequate fluid should be taken during the course of the illness.



Ibuprofen and paracetamol can be used as an antipyretic and/or analgesic.

Onward Referral

Make onward referral to GP or another healthcare provider as appropriate if the patient meets ANY of the following criteria

- Patient is systemically very unwell
 - Patient has signs of a more serious illness
 - Patient is at high risk of complications because of pre-existing comorbidities (including children with significant heart, lung, renal, liver, neuromuscular disease, immunosuppression, cystic fibrosis, young children who were born prematurely)
- 

Safety Netting

- Remember to offer appropriate safety netting advice. Patient should make an appointment with their GP or another healthcare provider as appropriate:
- If symptoms worsen rapidly or significantly at any time, or the child or young person becomes very unwell.
- If symptoms do not improve despite antibiotics taken for at least 2-3 days,





Ear Examination

Ear Examination

- **Equipment**
 - **Otoscope** - An otoscope is a medical instrument used to examine the ear. The otoscope magnifies the inside of the ear to detect problems like earwax build-up or bulging and inflamed tympanic membrane. It has a magnifying glass, a cone-shaped speculum at the end of a tube, and a light source
 - **Speculums**
 - A pair of non-sterile gloves (optional)
 - Clinical waste bin.



Getting yourself and your patient ready



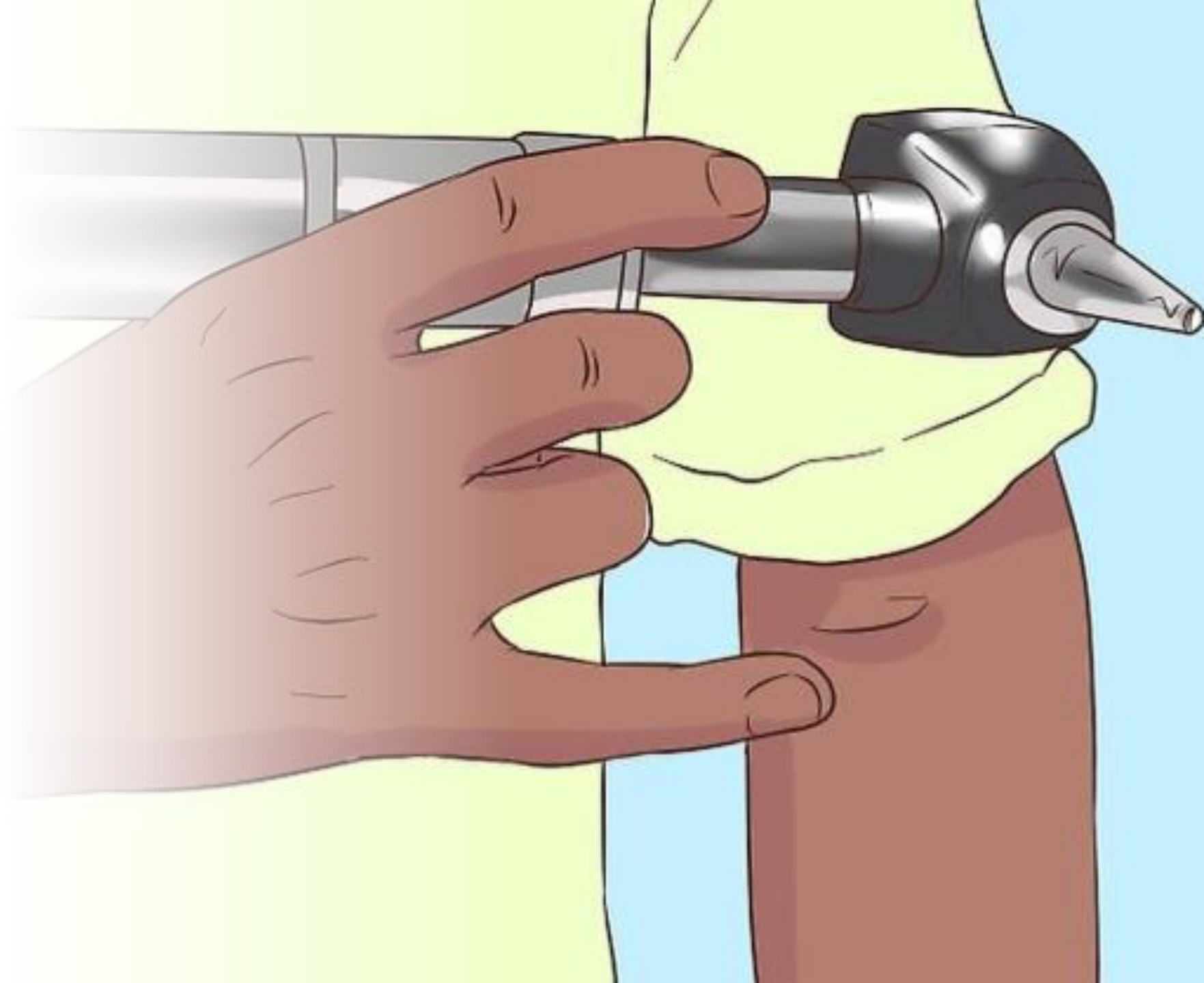


Be gentle with the patient. The ear is a very sensitive organ and can injure easily if improperly examined. Avoid pulling, pushing, or generally being rough with the patient you are examining. This can calm your patient and minimise the risk of injury from sudden movements. Ask your patient if the pressure is acceptable to them.

Handle the otoscope properly. Turn the otoscope's light on and hold your otoscope "upside down" between your thumb and pointer finger like a pen or pencil.

Place the back of your hand along the person's cheek so that otoscope is steady and braced. While the position may feel awkward at first, it soon will feel natural.

Use your dominant hand to examine both ears. Your stabilising hand acts a protecting lever if the person suddenly moves the head.



Straighten the ear canal. Use your opposite hand to gently pull the outer ear up and back on patients older than 12 months.

Straightening your patient's ear canal can make it easier to examine the ears.

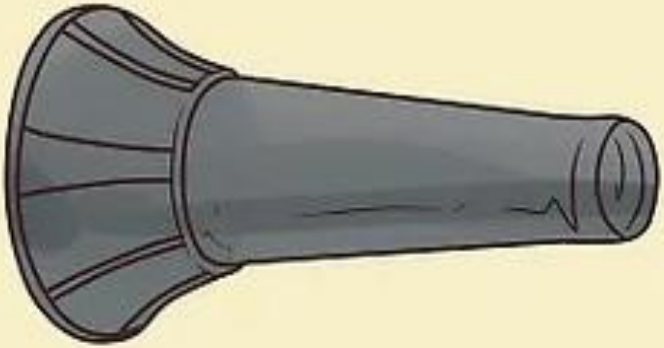
Pull the outer ear down for babies and children younger than 3 years old.

Grasp the ear at the 10 o'clock position when examining the right ear and the 2 o'clock position for the left.



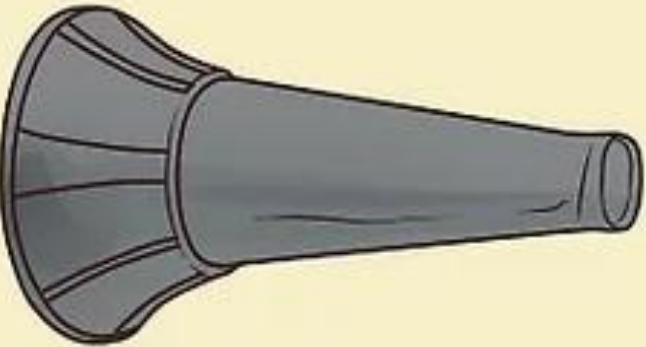
Examining the ear





Adults: 4 to 6 mm

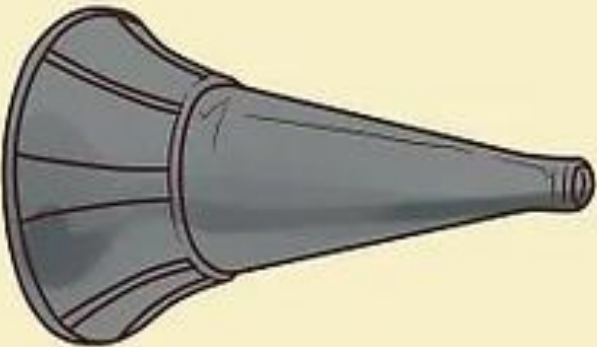
Choose the right speculum size. Put a new speculum, or pointed end, onto your otoscope before each patient.



Children: 3 to 4 mm

Select the largest possible speculum that your patient's ear will accommodate.

When inserted, the speculum should fit snugly into the outer third of the ear canal.



Infants: 2 mm

Speculums that are too small can cause discomfort and reduce how much of the ear you can examine.

Use the following guidelines for speculum size:

Adults: 4 to 6 millimeters.

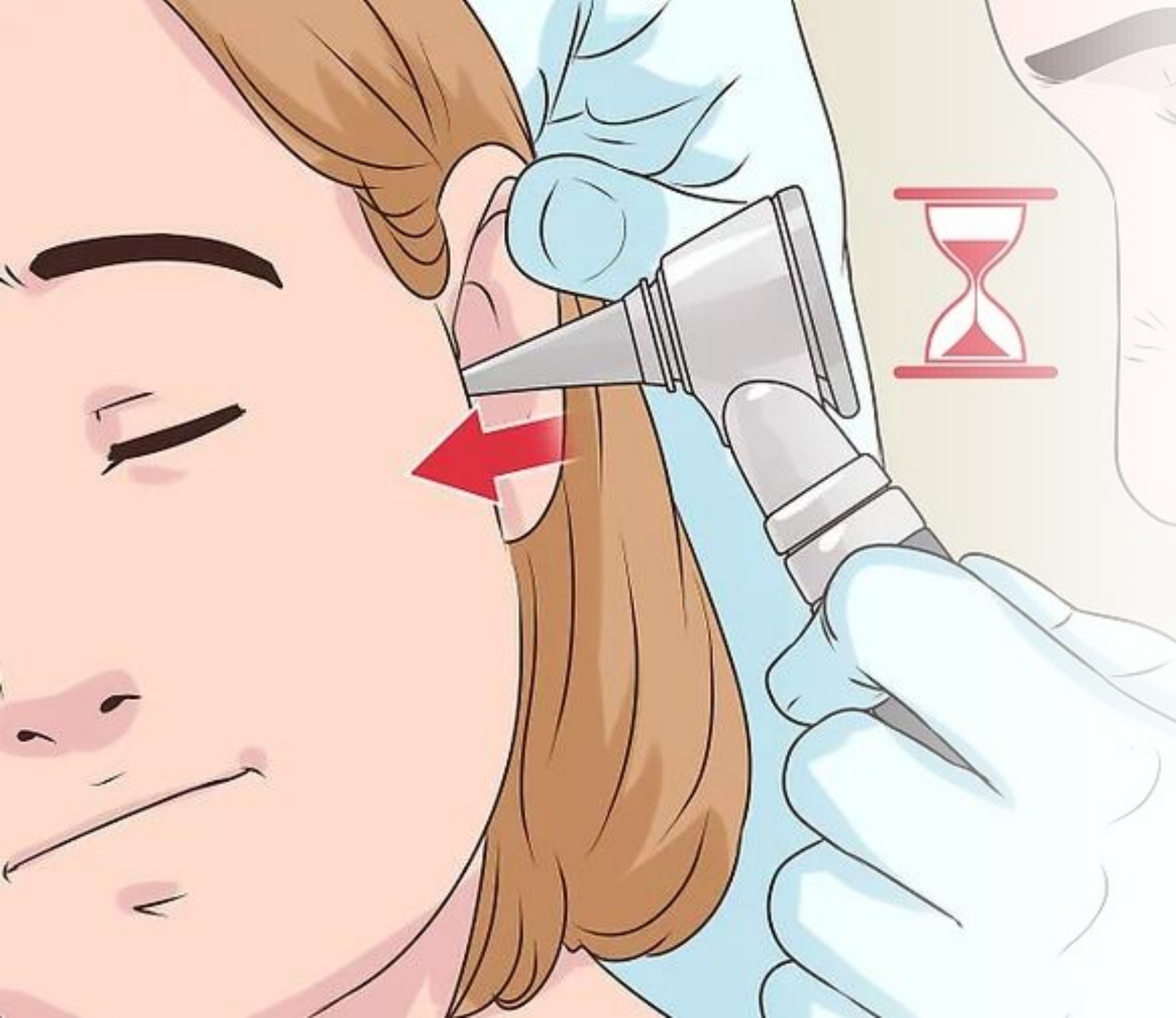
Children: 3 to 4 millimeters.

Infants: as small as 2 millimeters



Examine the external ear first. Without using the otoscope, take a look at the person's external ear and notice any redness, discharge or swelling.

Manipulate the ear gently and ask the patient if there is any pain.



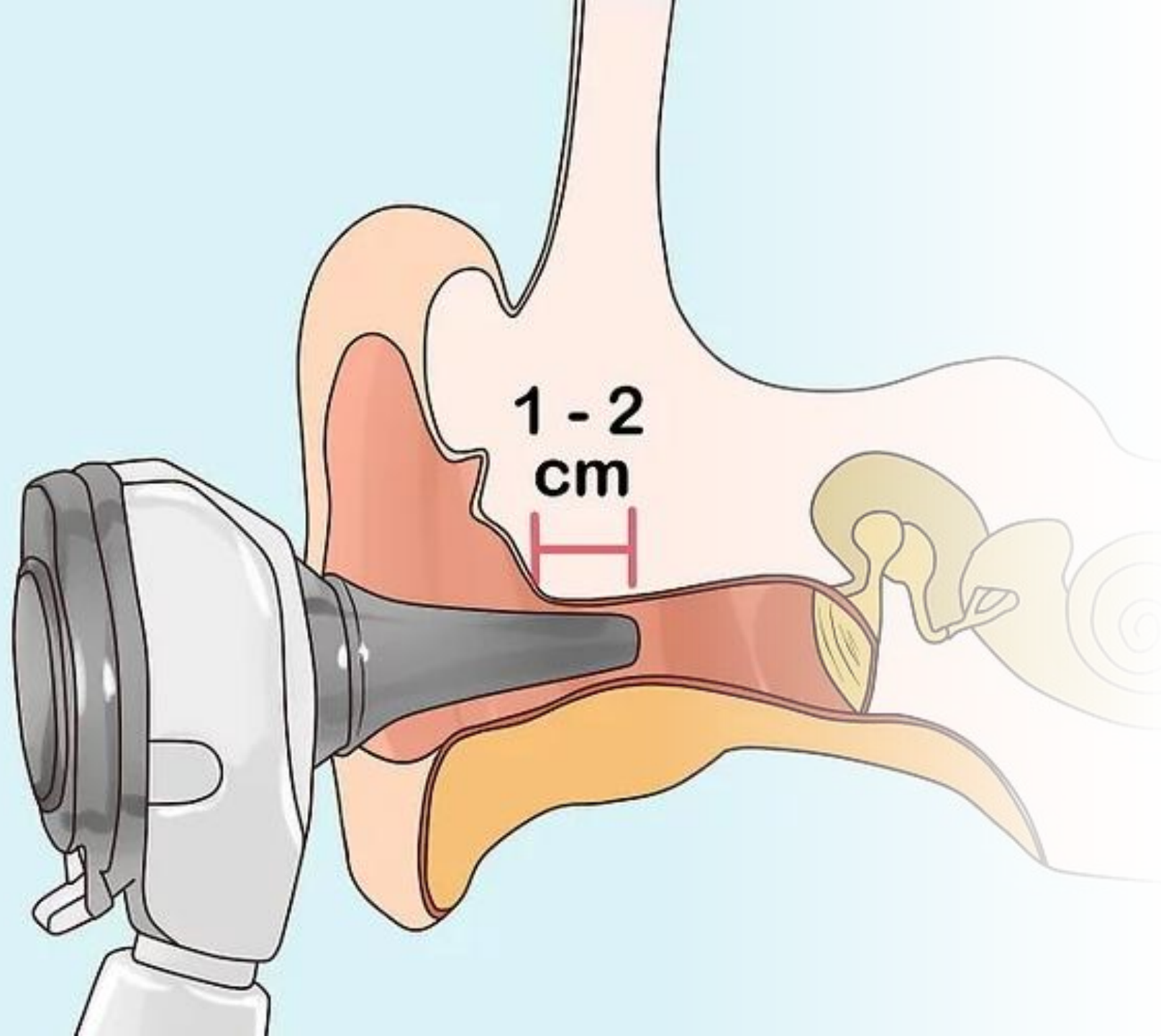
Insert the otoscope slowly into the ear canal. Place the otoscope at your patients ear, not in it.

Look into your otoscope and then slowly insert the pointed end of it into the ear canal.

Steady your hand on the side of the individuals face if necessary.

Slow and gentle insertion can prevent unwanted movement in your patient. It also keeps your hand and scope in line with the ear and minimizes the risk of injury.

Avoid putting too much pressure on the otoscope, which can bump the inner canal wall, causing the patient discomfort.

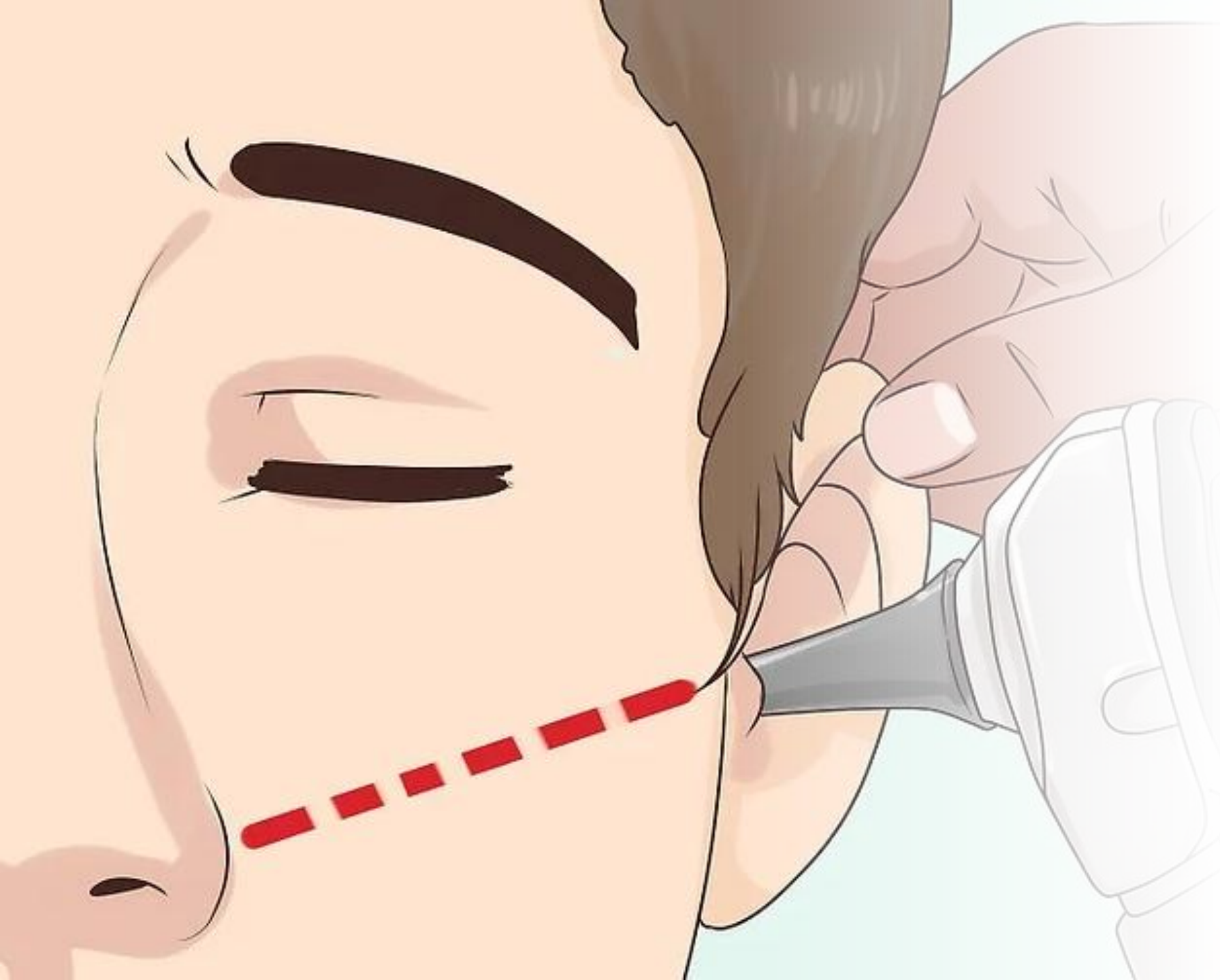


Push the speculum 1 to 2 centimeters into the canal. Avoid ramming the speculum into the ear canal.

Insert it at most 1 to 2 centimeters and then use the light to view beyond the tip of the speculum.

Stop the examination immediately if the patient expresses any pain or discomfort.

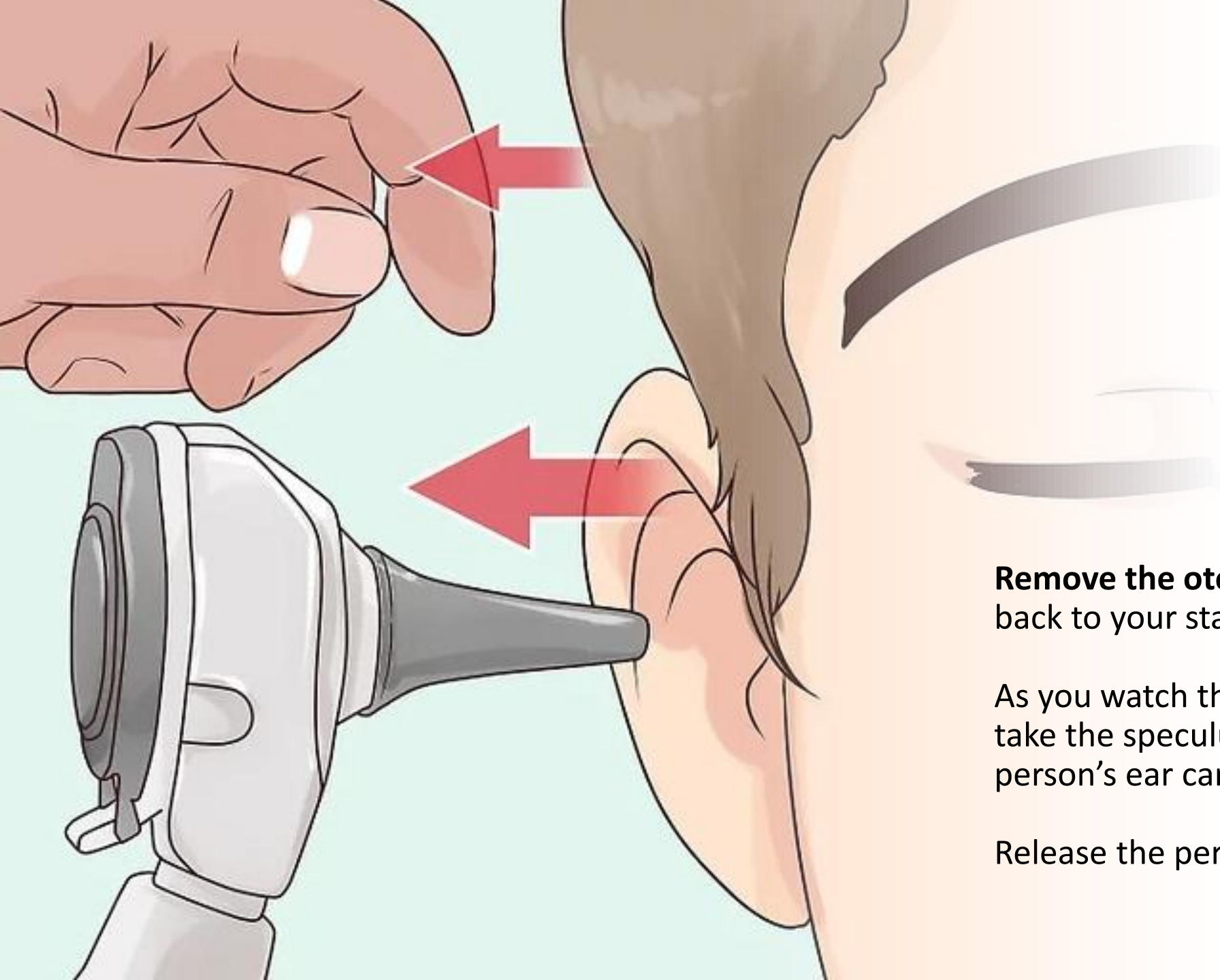
Examine the middle ear and eardrum.



Angle the otoscope. Angle the tip of the otoscope towards the person's nose.

This follows the normal angle of the ear canal. From here, move the otoscope gently at different angles. This allows you to view the person's eardrum and canal walls.

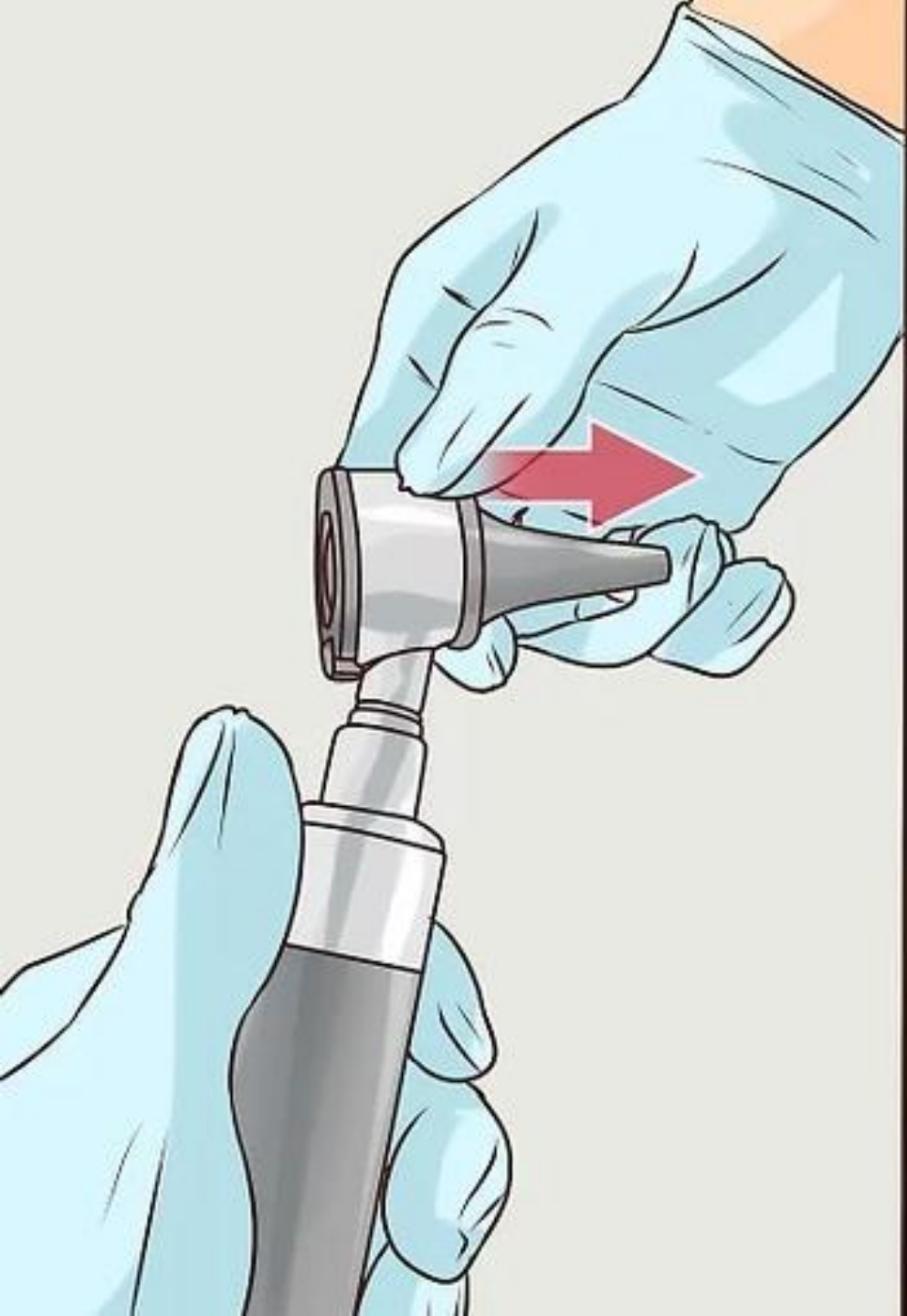
Stop the exam at any sign of increased pain or discomfort



Remove the otoscope. Return the otoscope back to your starting position.

As you watch through the speculum, gently take the speculum and scope out of the person's ear canal and outer ear.

Release the person's ear from your grasp.



Throw away the speculum. Remove the speculum from the otoscope.

Throw it away in a certified medical waste container to minimize the spread of disease or infection to other patients.



Ear Examination - Child

- It is not until age 3 that a normal child's eardrum resembles that of an adult.
- For examination the child should sit on an adult's lap, sideways for examining the ears. Both hands should be secured by the adult with one hand, the head held firmly against the chest with the other.
- The otoscope should be held lightly, like a pencil between thumb, index and middle fingers. The little finger can be rested on the forehead, thus if the head moves, the otoscope moves too, not knocking the meatus or drum, which are sensitive.
- It may be possible to introduce the suggestion that the examination may well tickle, especially in children over three years.

Ear Examination – Child – example videos

[\(167\) How to Conduct an Ear Exam on a Baby – YouTube](https://www.youtube.com/watch?v=-3mwzklzIHA)

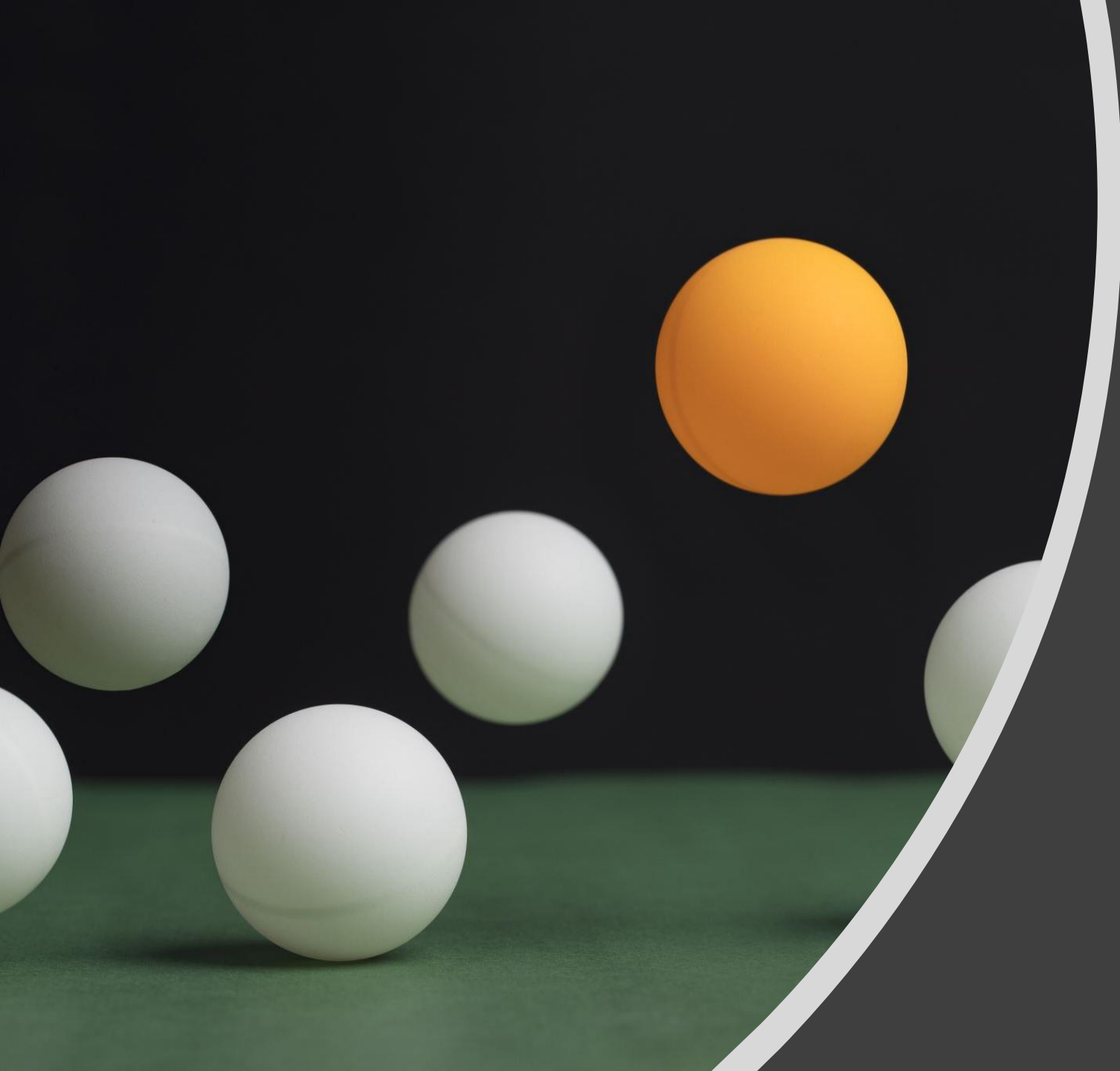
<https://www.youtube.com/watch?v=-3mwzklzIHA>

[How to Conduct an Ear Exam on a Toddler \(youtube.com\)](https://www.youtube.com/watch?v=xFqt74bsP0o)

<https://www.youtube.com/watch?v=xFqt74bsP0o>

Any Questions





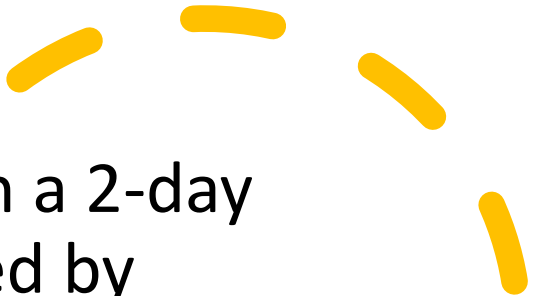
PRACTICE



Any questions??



Case 1



A 9-year-old presents with a 2-day history of ear pain followed by sudden relief and purulent discharge from the right ear. No significant past medical history. Mild fever initially.

Examination

Otoscopy shows a perforated tympanic membrane with visible discharge in the ear canal.



Management



**REFER FOR REVIEW BY A GP AFTER
STARTING TREATMENT.**



**IMMEDIATE ANTIBIOTICS
INDICATED (OTORRHOEA IS A KEY
INDICATION)**

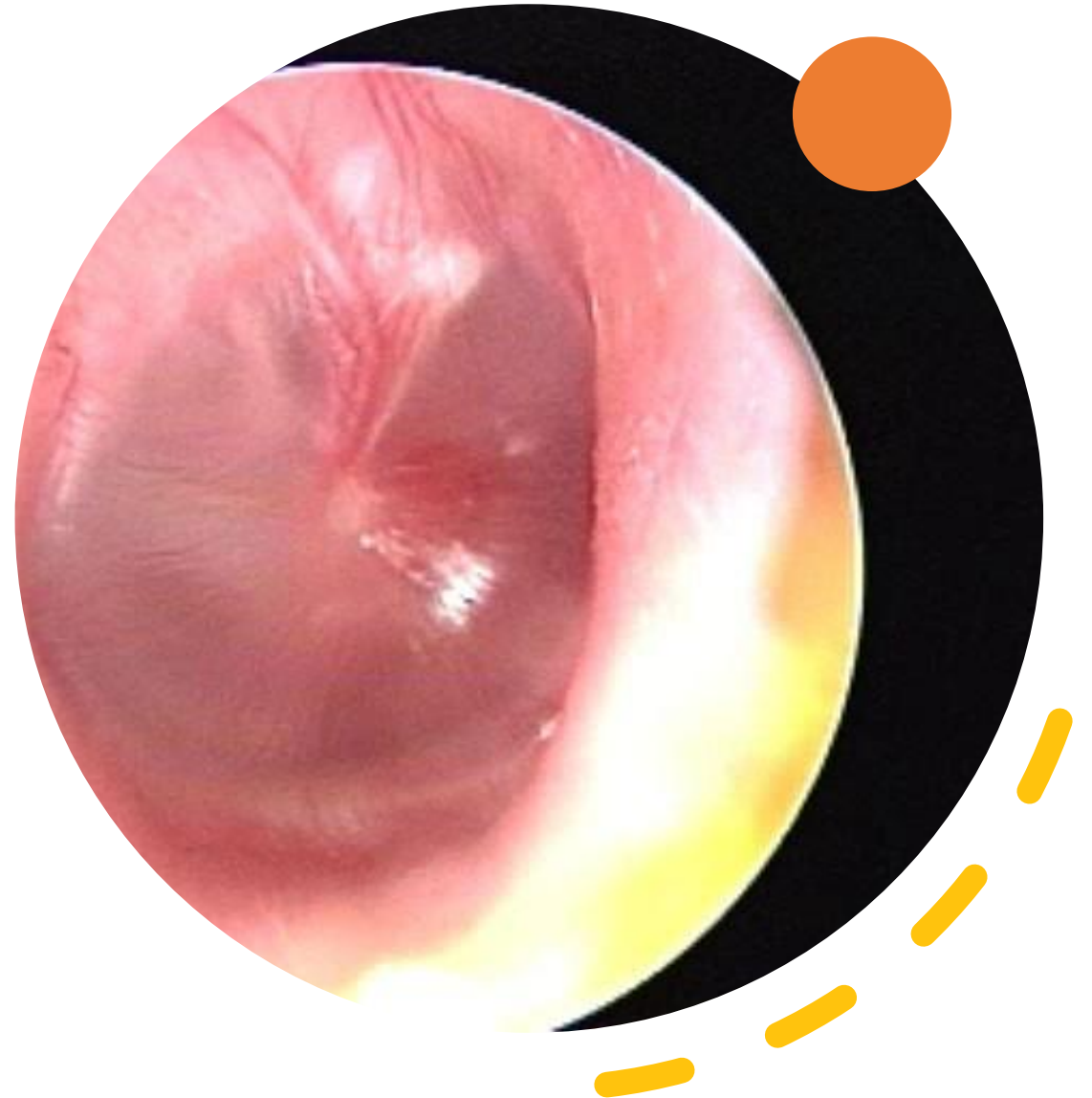
Case 2

An 18-month-old child presents with irritability and ear tugging for 24 hours. No fever. Eating slightly less but still drinking well.



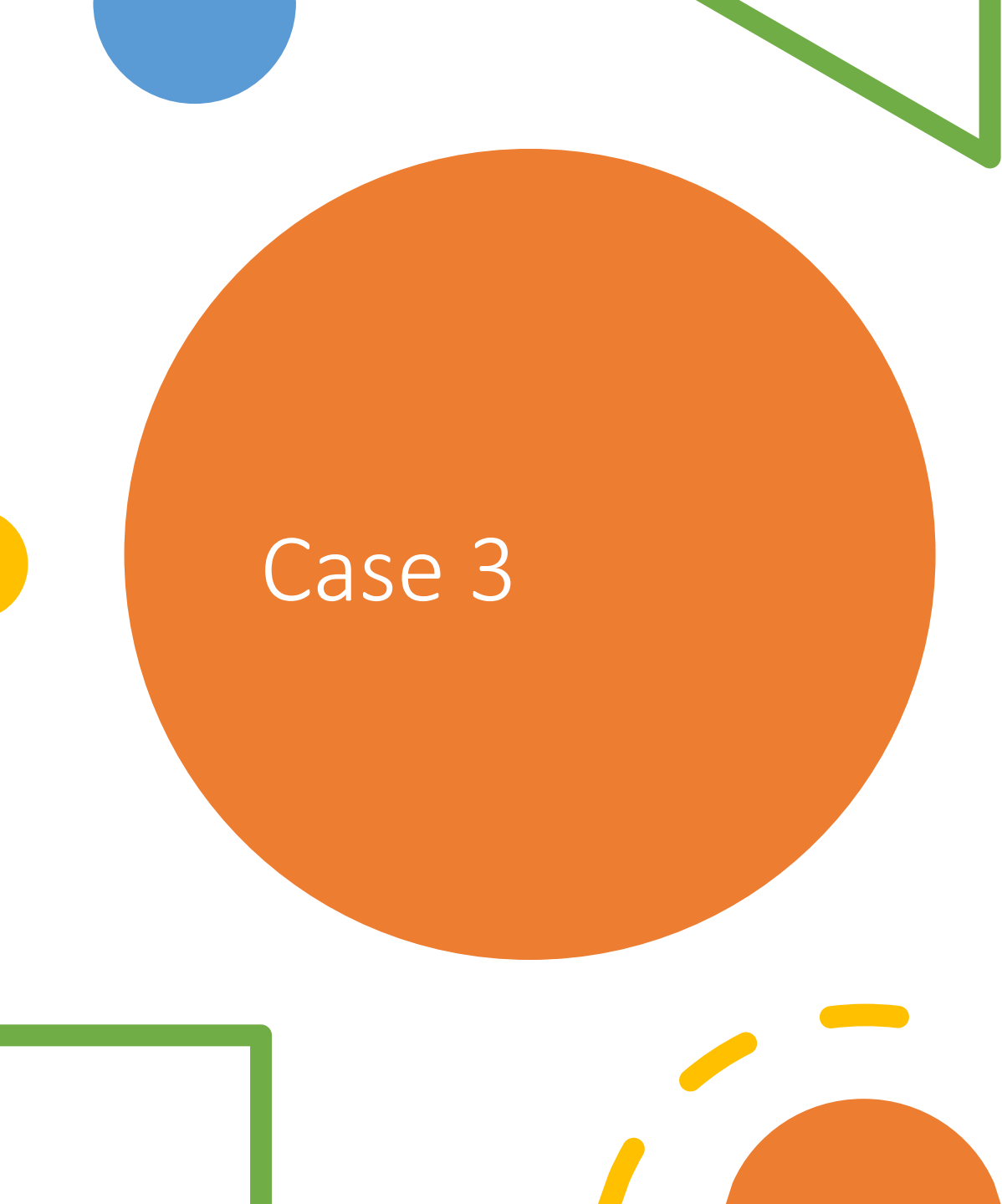
Examination

Erythematous tympanic membrane,
no bulging, no discharge.



Management Plan

- **No immediate antibiotics** (mild symptoms, systemically well)
- Reassurance: most cases resolve within 3 days without antibiotics
- Analgesia: Paracetamol/Ibuprofen. Otigo may be useful to treat pain and inflammation.
- Provide **safety-net advice**: return if symptoms worsen, fever develops, or persists >3 days



Case 3

A 14-month-old presents with 4 days of fever (38.5°C), persistent ear pain, poor feeding, and irritability. Parents report bilateral ear symptoms.

Examination

Both tympanic membranes are red and bulging.



Management

Immediate antibiotics: Usually Amoxicillin 5 days

Analgesia

Review if no improvement after 48–72 hours



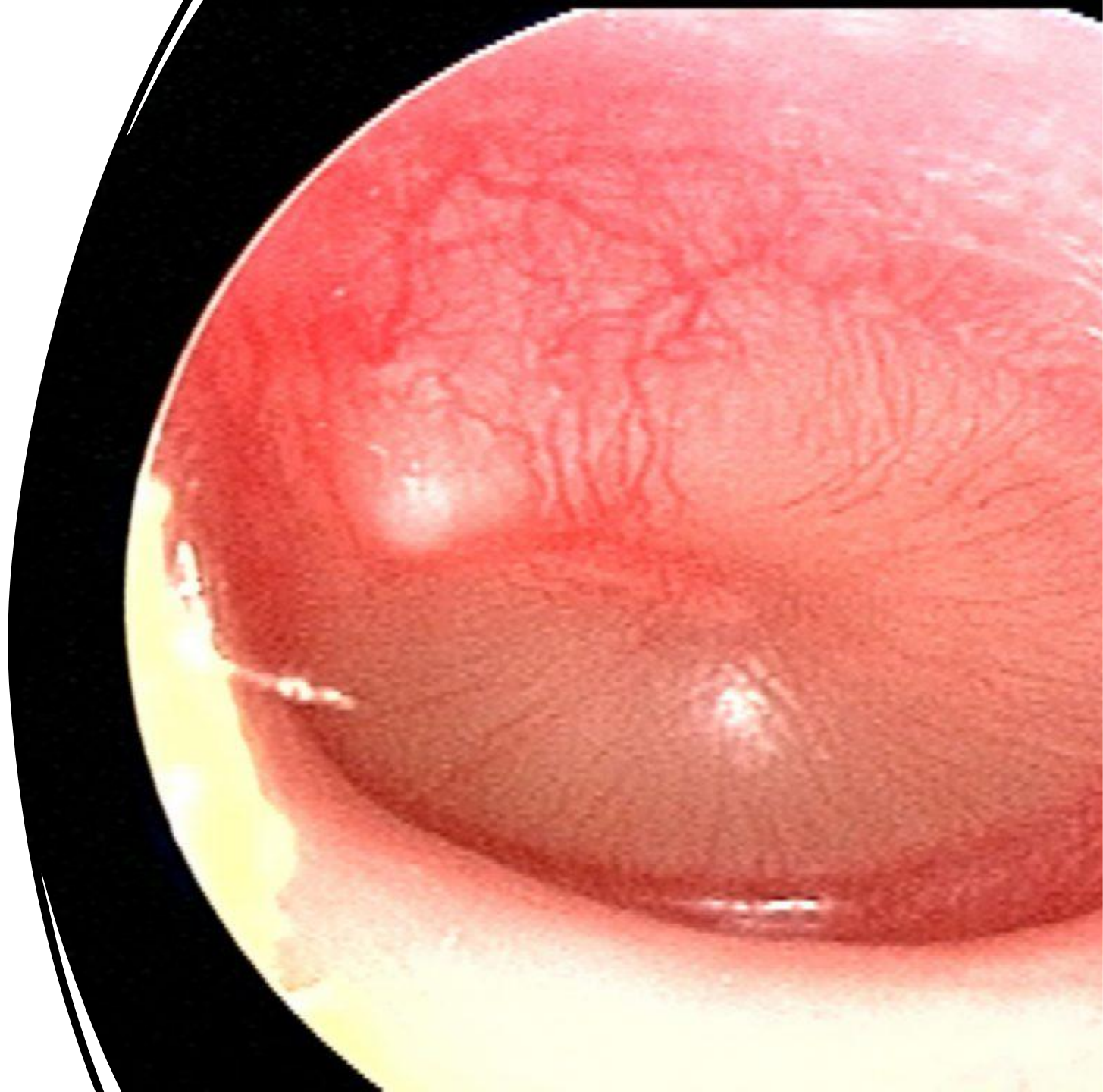
Case 4



A 6-year-old presents with 2 days of unilateral ear pain following a recent URTI. Mild fever (37.8°C), otherwise active and eating normally.

Examination

Red, slightly bulging tympanic membrane.



Management Plan

- Analgesia (mainstay of treatment).
- Otigo if moderate/severe symptoms
- Explain natural course: most improve within 3 days
- Provide clear safety-netting advice
- **If no improvement after 3 days come back for a review.**

Salient points.



In otitis media the question is – is it infected?



Signs of infection – Pus behind the eardrum, fever.



If no infection – conservative management.
Consider Otigo for symptomatic treatment.



If infected for oral antibiotics.



If there is a perforation, the patient needs to see their GP.



THANK YOU



Final Questions & Close

Janice Perkins
Executive Chair

