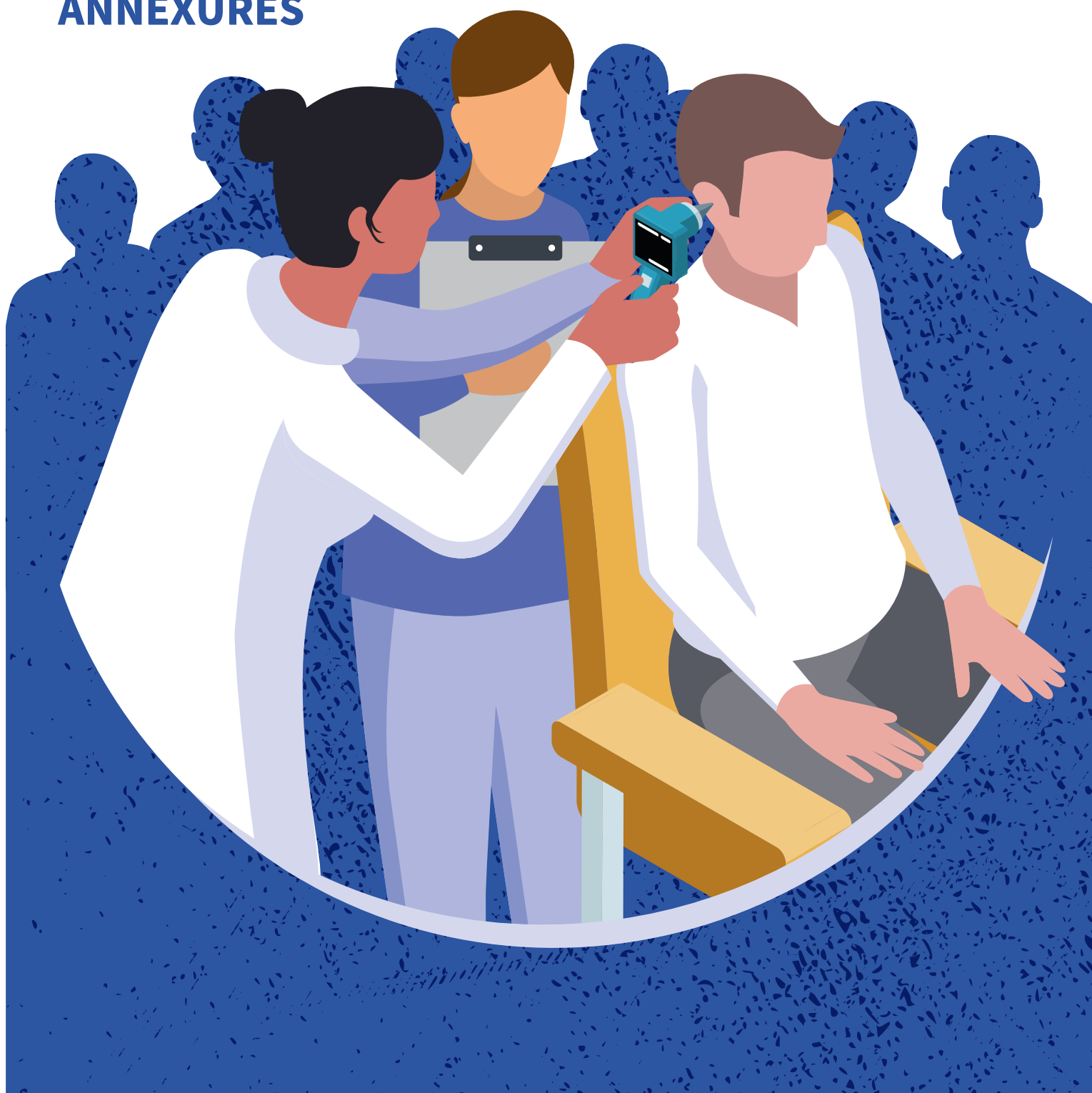




PRIMARY EAR AND HEARING CARE

TRAINER'S HANDBOOK

ANNEXURES



ANNEXURES

Trainer's handbook Web-annex 2

WHO Primary Ear and Hearing Care: written test to accompany the
'Primary Ear and Hearing Care: Training Manual'.

Your name: _____

Date: _____ Location: _____

You have **15 minutes** to complete this test. There are 20 questions.

For each question there is only one **correct answer**.

Please read the question carefully and put a cross in the box next to what you think is the correct answer.

For example:

1. The ear is used for

☒ Hearing and balance

☐ Seeing

☐ Taste

☐ Touch

 **Correct way to mark**

*Do not mark more than
one answer:*

2. The ear is used for

☒ Hearing and balance

☐ Seeing

☐ Taste

☒ Touch

 **Incorrect way to mark**

*If you make a mistake and wish
to change your answer, you can
do it like this:*

3. The ear is used for

☒ Hearing and balance

☐ Seeing

☐ Taste

~~☒ Touch~~

 **Correct way to mark**

1. Disabling hearing loss

- ☐ Affects 1 in 190 people around the world
- ☐ Is not a problem if only one ear is affected
- ☐ Is usually associated with low intelligence
- ☐ May be rehabilitated with a hearing aid

2. Which of the following medical words means “pain in the ear”

- ☐ Otalgia
- ☐ Otorrhoea
- ☐ Tinnitus
- ☐ Vertigo

3. Which of the following is part of the outer ear

- ☐ Cochlea
- ☐ Eustachian tube
- ☐ Malleus bone
- ☐ Pinna

4. Which of the following does NOT cause hearing loss

- ☐ A hole in front of the ear (pre-auricular sinus)
- ☐ A hole in the ear drum
- ☐ Glue ear
- ☐ Otitis externa (outer ear infection)

5. Which of the following can cause ear discharge

- ☐ A middle ear infection
- ☐ Glue ear
- ☐ Pinna haematoma
- ☐ Wax

6. Which of the following can cause ear pain

- ☐ Age related hearing loss
- ☐ Cholesteatoma
- ☐ Glue ear
- ☐ Microtia (an abnormally shaped pinna)

7. In injury to the outer ear

- ☐ Injury can be caused by otoscopy
- ☐ Injury can cause vertigo
- ☐ Pinna haematoma should be referred after 2 weeks
- ☐ Treatment should include washout of the ear canal

8. Wax in the ear canal

- ☐ Can cause hearing loss
- ☐ Is a sign of poor hygiene
- ☐ Is treated with antibiotic ear drops
- ☐ Should be removed with cotton buds

9. Which of the following can cause an outer ear infection (otitis externa)

- ☐ Bell's palsy
- ☐ Noise
- ☐ Smoking
- ☐ Water getting into the ear

10. Acute otitis media (an ear infection)

- ☐ Should not be treated with antibiotics if the child is aged less than two
- ☐ Can be treated with warmed oil in the ear
- ☐ Can cause infection in the brain
- ☐ Is more common in children who are breastfed

11. Which of the following is NOT a treatment for chronic suppurative otitis media (a hole in the eardrum with infection)

- ☐ Antibiotic drops
- ☐ Ear washout with iodine
- ☐ Grommet surgery
- ☐ Wicking the ear

12. Which of the following should be referred urgently to a specialist

- ☐ A person with tinnitus
- ☐ A pre-auricular sinus without infection
- ☐ A cholesteatoma where the patient has no pain
- ☐ Glue ear present for two weeks

13. Which of the following can cause a child to be born deaf

- ☐ A curse
- ☐ Consanguinity in the parents (marrying a close relative)
- ☐ Penicillin antibiotic given to the mother
- ☐ Vaccination given to the mother

14. Which of the following is true of ear washout

- ☐ Dilute alcohol should be used
- ☐ It should be used for a child with acute otitis media
- ☐ It can be used to remove wax
- ☐ The washout should be directed straight towards the ear drum

15. Which of the following is true of mastoiditis

- ☐ It can be treated with ear washout
- ☐ It happens after an outer ear infection (otitis externa)
- ☐ It is more common in adults than children
- ☐ It may need surgery

16. For a child with severe hearing loss, which of the following is NOT an option for rehabilitation

- ☐ Cochlear implant
- ☐ Hearing aid
- ☐ Medicines
- ☐ Sign language

17. Which of the following tests is appropriate to test hearing in a two year old child

- ☐ Distraction test
- ☐ HearWHO app
- ☐ Pure tone audiometry
- ☐ Whispered voice test

18. Which of these is important to help a hearing aid work well

- ☐ Changing the battery every day
- ☐ Cleaning the tubing if it is blocked
- ☐ Cleaning the hearing aid with soap and water once a week
- ☐ Getting the hearing aid checked by an audiologist every month

19. Which of the following is true about sign language

- ☐ One sign language is used by most deaf people all over the world
- ☐ Sign language can be used in a deaf child as young as two years old
- ☐ Sign language should not be used by children who wear a hearing aid
- ☐ Sign language should not be used by people who can hear normally

20. Which of the following can prevent noise damage to the ear

- ☐ Antibiotics
- ☐ Regular hearing tests
- ☐ Using personal devices with the volume at less than 90% of maximum
- ☐ Wearing ear protection (earplugs)



ANSWERS

The correct answers for the written test are:

1. May be rehabilitated with a hearing aid
2. Otalgia
3. Pinna
4. A hole in front of the ear (pre-auricular sinus)
5. A middle ear infection
6. Cholesteatoma
7. Injury can be caused by otoscopy
8. Can cause hearing loss
9. Water getting into the ear
10. Can cause infection in the brain
11. Grommet surgery
12. A cholesteatoma where the patient has no pain
13. Consanguinity in the parents (marrying a close relative)
14. It can be used to remove wax
15. It may need surgery
16. Medicines
17. Distraction test
18. Cleaning the tubing if it is blocked
19. Sign language can be used in a deaf child as young as two years old
20. Wearing ear protection (earplugs)

Objective Structured Clinical Examination (OSCE) stations

Station 1: Examination

Equipment required:

Otoscope

Speculae

Alcohol wipe or other method to clean ear speculum

Volunteer (with normal hearing) to act as patient

A total of **15 minutes** should be allocated to this station. The candidate is asked to perform otoscopy and then to perform a whispered voice test of hearing. A point should be awarded for each correct action and between 0 and 2 points for global performance.

The volunteer should be instructed to give a correct answer to the whispered voice test on testing the first ear, and an incorrect answer on testing the second ear.

OSCE Station 1: Examination (Examiner observation sheet)

Name of Candidate _____

Name of Examiner _____

Date / Location _____

Item	One point for each	Comments
Otoscopy		
Introduces / explains procedure		
Gains consent		
Washes hands		
Checks otoscope light is working		
Attaches speculum correctly		
Inspects the pinna externally		
Pulls pinna up & back before otoscopy		
Holds otoscope correctly		
Inserts otoscope sufficiently deep and appropriately angled		
Does not cause discomfort to patient		
Examines both ears		
Cleans speculum after use		
Whispered voice test		
Stands at arms-length behind patient		
Rubs tragus to mask non-test ear		
Whispers three random letter / number combinations		
Tests other ear		
Repeats the test when patient fails		
Correctly identifies pass in first test ear and fail in second test ear		
Global score (0-2) 0 = lacked competence / fluidity 1 = competent 2 = excellent		
TOTAL SCORE (Out of 20)		

OSCE Station 2: Skills Assessment

Equipment required:

10ml or 20ml syringe

Blunt needles

Water

Container for holding water

Foreign body (e.g. seed)

Tissues

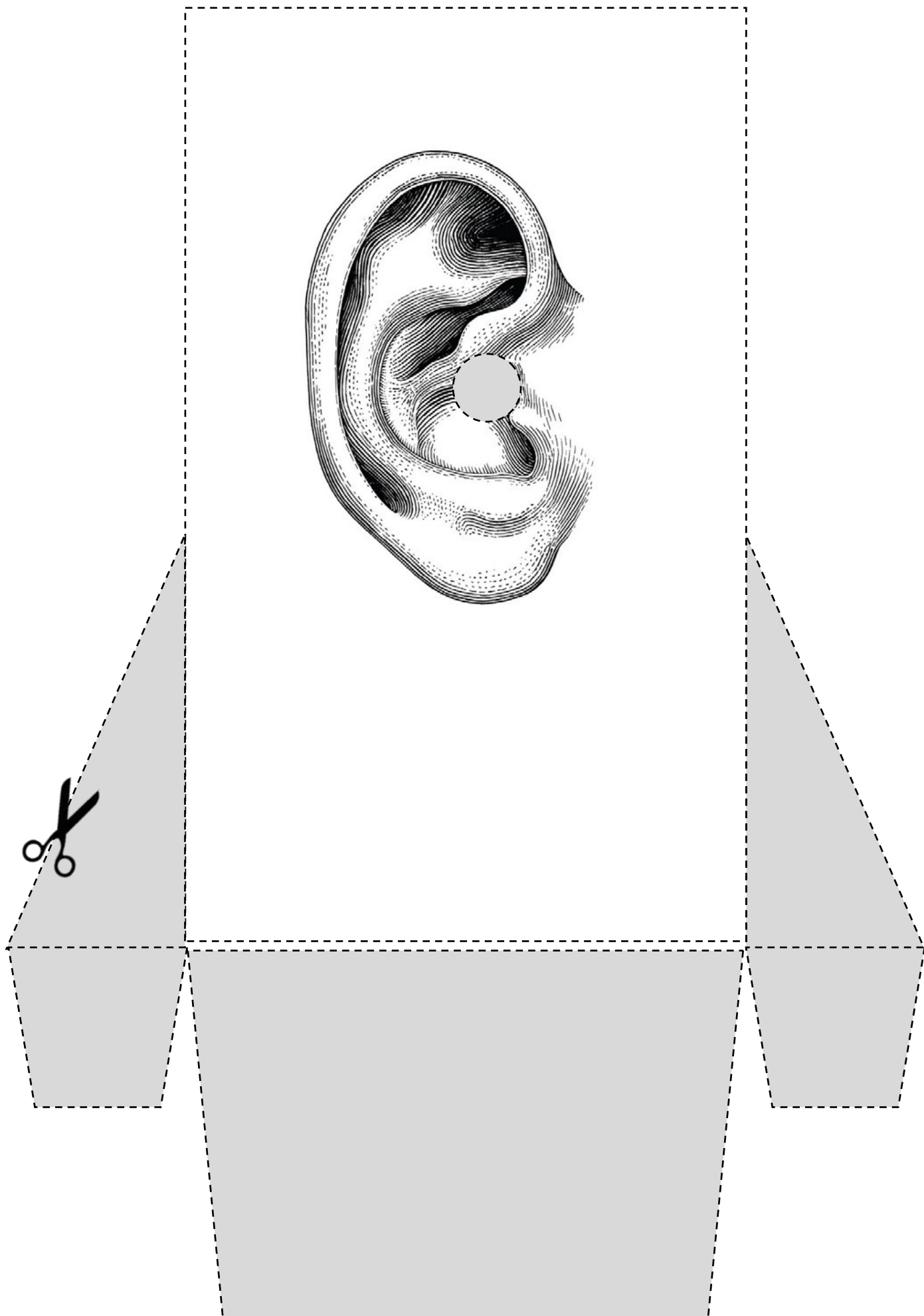
Dropper bottles (to represent antibiotics)

5ml syringe - to mimic ear canal (barrel only, plunger removed)

Cardboard cut-out model of ear canal

A total of **15 minutes** should be allocated to this station. The candidate is asked to perform ear washout, and then perform dry mopping and instillation of ear drops. A point should be awarded for each correct action and between 0 and 2 points for global performance.

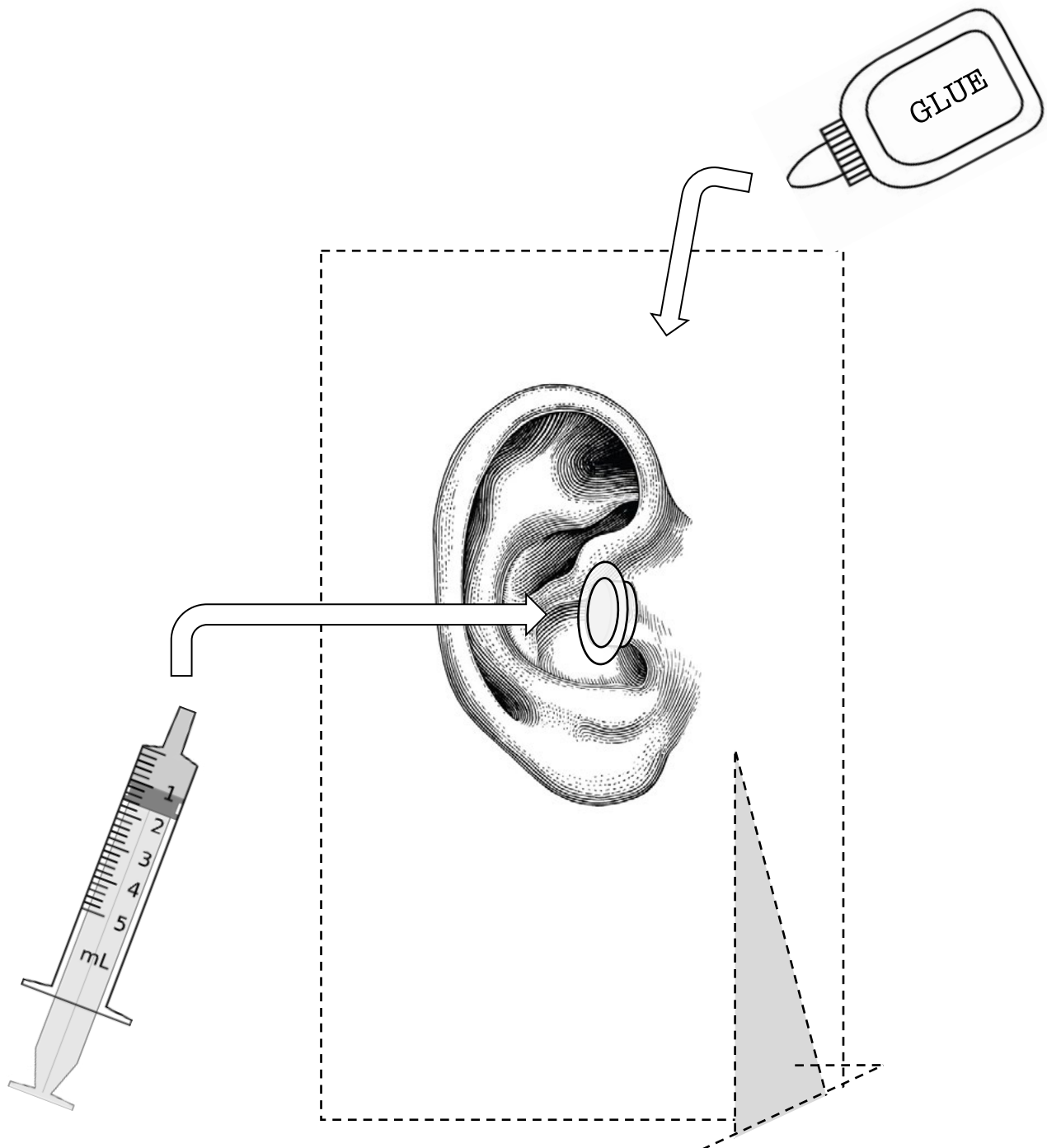
You will need to prepare a model of the ear. A template is provided which can be printed, attached to a piece of thick card or cardboard, and folded to make a stand. Coat this model with glue or a similar substance to waterproof it. You will need to cut-out a hole and push a tube through this (such as the barrel of a 5ml syringe) to represent the ear canal.



Attach to thick card or cardboard.

Waterproof (e.g. using PVA or other glue).

Remove plunger from syringe and push through.



OSCE Station 2: Skills Assessment (Examiner observation sheet)

Name of Candidate _____

Name of Examiner _____

Date / Location _____

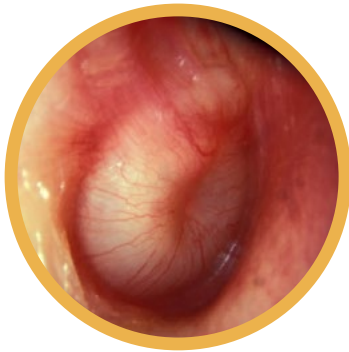
Item	One point for each	Comments
Ear washout of foreign body		
Introduces / explains procedure		
Gains consent		
Washes hands		
Examines ear with otoscope (or states that they would)		
Checks temperature of water		
Directs washout towards ear canal and not tympanic membrane		
Expels foreign body		
Disposes of needle in sharps bin		
States would repeat otoscopy to ensure effectiveness		
Cleans speculum after use		

Dry mopping & instilling ear drops		
Introduces / explains procedure		
Gains consent		
Makes tissue spear correctly		
Cleans by inserting & rotating spear		
Inserts spear to appropriate depth		
Checks patient's allergy status prior to instilling ear drops		
Applies 2-3 ear drops		
States (when prompted) would massage tragus or ask patient to		
States (when prompted) would keep patient head horizontal for 2-3 minutes		
Global score (0-2) 0 = lacked competence / fluidity 1 = competent 2 = excellent		
TOTAL SCORE (Out of 20)		

OSCE station 3 – Clinical scenarios

CASE A

A four-year-old boy is brought to the health centre. His mother says that he has had right ear pain and fever for the three days and is not getting better. You look inside the ear and this is what you see.



Q1 What is the diagnosis?

Q2 What two treatments would you give?

The mother brings back the child four days later because he is still having fever and it is now red and swollen behind his ear.



Q3 What is the diagnosis?

Q2 How would you manage this now?

CASE B

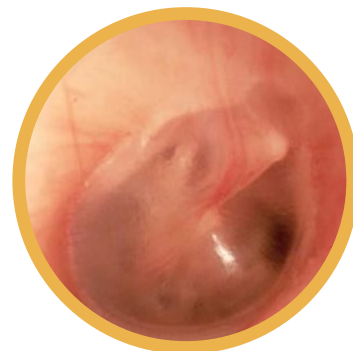
A 62-year-old woman comes to you complaining of hearing loss that has come on over many years. She has no other ear symptoms. When you look in her ears this is what you see.



Q1 What can you see?

Q2 How would you treat this?

After washout, this is what you see.



Q3 Is there any abnormality?

The patient still complains of hearing loss.

Q4 How can you test the hearing?

Q5 How would a specialist (an audiologist) test the hearing?

Q6 What is the most common way to rehabilitate age-related hearing loss?

The infection settles and the patient returns ten days later. This is what you see.



CASE C

A 20-year-old man comes to see you with discharge from his right ear. He gets discharge from his right ear three or four times a year, and this has been happening since he was a young child. This is what you see on otoscopy.

Q4 What can you see?

Q5 Other than ear infections, what other symptom might this patient have?

Q6 The patient has had repeated infections and hearing loss. How would you manage this patient now?



Q1 What is the diagnosis?

Q2 What two methods can you use to clean out the pus?

Q3 After cleaning out the ear, what treatment will you give?

OSCE Station 3: Candidate Answer sheet

Name of Candidate _____

Date / Location _____

Please write your answer(s) in the box next to the question number

CASE A	
Q1	
Q2	
Q3	
Q4	

CASE B	
Q1	
Q2	
Q3	
Q4	
Q5	
Q6	

CASE C	
Q1	
Q2	
Q3	
Q4	
Q5	
Q6	

OSCE Station 3: Clinical Scenarios (mark sheet)

Name of Candidate _____

Name of Examiner _____

Date / Location _____

Item		One point for each	Comments
CASE A			
Q1	States diagnosis of acute otitis media (ear infection)		
Q2	States treatment with antibiotics		
Q3	States treatment with painkillers		
Q4	States diagnosis of mastoiditis		
Q5	States referral to specialist		
CASE B			
Q1	States diagnosis of wax (impacted)		
Q2	States treatment with ear washout		
Q3	States normal eardrum		
Q4	States whispered voice test		
Q5	States pure tone audiogram		
Q6	States hearing aid		

CASE C			
Q1	States diagnosis of chronic suppurative otitis media		
Q2	States treatment with ear washout		
Q3	States antibiotic ear drops (or antiseptic ear drops)		
Q4	States tympanic perforation (or hole in eardrum)		
Q5	States hearing loss		
Q6	States referral to specialist		
	Global score (0-2) 0 = lacked competence / fluidity 1 = competent 2 = excellent DO NOT USE IF TEST IS PERFORMED WITH WRITTEN ANSWERS ONLY		
	TOTAL SCORE (Out of 18 if written or 20 if assessed in person)		

OSCE Station 4: Distraction test of hearing

Equipment required:

Wooden blocks or similar toy (the toy should not make any noise)

Towel or sheet

Doll

Rattle (if available)

Volunteer to act as parent of child

A total of **15 minutes** should be allocated to this station. The candidate is asked to demonstrate how to test infant hearing using the distraction test. The candidate should play the role of the tester, and the examiner can play the role of the distractor. A volunteer should play the role of the parent, and should hold the doll to represent their child. The candidate will need to instruct both the “parent” and the “distractor”.

A point should be awarded for each correct action and between 0 and 2 points for global performance.

The volunteer should be instructed to make the doll:

1. Turn its head to the sound on testing the first side at low volume
2. Not turn its head to the sound on testing the second side at low volume
3. Turn its head to the sound on testing the second side at high volume
4. Not turn its head when no sound is presented

OSCE Station 4: Distraction test of hearing (Examiner observation sheet)

Name of Candidate _____

Name of Examiner _____

Date / Location _____

Item	One point for each	Comments
Distraction test of hearing		
Introduces / explains procedure		
Gives correct instructions to parent		
Gives correct instructions to distractor		
Candidate (tester) sits in correct position for testing (one metre behind child)		
Candidate performs test on first side and correctly interprets result		
Candidate performs test on second side and correctly interprets result		
Candidate repeats test on second side at higher level, and correctly interprets result		
Candidate performs test without generating sound, and correctly interprets results		
Global score (0-2) 0 = lacked competence / fluidity 1 = competent 2 = excellent		
TOTAL SCORE (Out of 10)		

