



PROCEDURE	
Otoscopy	
Scope (Staff):	Community health staff
Scope (Area):	CAHS-CH, WACHS
Child Safe Organisation Statement of Commitment	
The Child and Adolescent Health Service (CAHS) commits to being a child safe organisation by meeting the National Child Safe Principles and National Child Safe Standards. This is a commitment to a strong culture supported by robust policy documents to ensure the safety and wellbeing of children at CAHS.	

This document should be read in conjunction with this [DISCLAIMER](#)

Aim

To assess a client’s external auditory canal and tympanic membrane as a component of a broader ear health assessment.

Risk

Non-compliance with the procedure may result in failure to identify and treat ear conditions early enough to prevent hearing loss, developmental issues and long term impacts.¹

Background

Otoscopy is part of comprehensive ear health and hearing screening for children. Screening may also include video otoscopy, audiometry and/or tympanometry. The ear health and hearing screening schedule for Western Australian children can be viewed in the *Hearing and ear health guideline*.

Otoscopy allows a physical inspection and assessment of the pinna, ear canal and the tympanic membrane. Normally the canal is pink with a small amount of fine hairs and cerumen.² Deviations from normal include inflammation, infection, lesions, scaling, scratches, swelling, occlusion, drainage, discharge, foreign bodies, offensive odour and excessive or impacted cerumen.²

Accurate diagnosis of ear disorders such as Otitis Media requires assessment of the appearance of tympanic membrane by otoscope (or video otoscope) plus compliance or mobility of the tympanic membrane by pneumatic otoscopy or tympanometry.³

The tympanic membrane is assessed for colour, translucency, anatomic landmarks, light reflex, contour (position) and for the presence of perforations. Normally the tympanic membrane is pearly grey to light pink and peripheral blood vessels may be evident.² The contour of the tympanic membrane is normally neutral or concave and will be intact.² There should be no signs of scarring, opacity or lesions.² Anatomical landmarks include identifying the long process of the malleus, the cone of light reflex reflected from where the long process of the malleus connects to the tympanic membrane, and the short process of the malleus.¹ These landmarks may become distorted or absent when fluid has accumulated behind the membrane.²

Key Points

- If there is evidence that the child is under the care of a relevant health professional, a clinical judgement about the need for otoscopy and other assessment is required.
- Otoscopy is always performed prior to audiometry and tympanometry.
- Otoscopy is only to be performed by staff who have completed CAHS-CH or WACHS training.
- When a child is not willing to have the procedure and staff or parent have concerns, discuss referral to a medical practitioner with parent.
- Ear health screening for WA children is outlined in the *Hearing and ear health* guideline.
- Regular and opportunistic ear health screening for Aboriginal children aged 0 – 5 years is critical in preventing ear disease and optimising health and development.⁴
- Key health education messages for families, children and school staff are to be provided as appropriate for the audience (see *Appendix A in Hearing and ear Health guideline*)
- Community health staff must follow the organisation's overarching Infection Control Policies and perform hand hygiene in accordance with WA Health Guidelines at all appropriate stages of the procedure.

Equipment

- Otoscope
- Spare batteries and/or charging unit
- Disposable specula (same brand as otoscope)

Process

Steps	Additional Information
<p>1. Preparation for screening session</p> <ul style="list-style-type: none"> • Check the otoscope for adequate light projection, as inadequate light may cause inaccuracy in findings. • Check health records to obtain relevant health history. 	<ul style="list-style-type: none"> • Switch the otoscope off between uses or remove batteries when the otoscope is not required for a period of time. • Batteries become flat very quickly and may leak if left in the otoscope. • Ask teacher about any concerns for individual children.
<p>2. Engagement and consent</p> <ul style="list-style-type: none"> • Ask parent/caregiver about health history, and/or • Check parent/caregiver responses in CHS 409-1, CHS409-5 or CHS 719. 	<ul style="list-style-type: none"> • When parent/caregivers are present, encourage involvement with the procedure, where possible. • See <i>Hearing and ear health</i> guideline for ear health history guide.

Steps	Additional Information
<ul style="list-style-type: none"> • Explain the procedure to the child and parent/caregiver, if present. Allow time for discussion of concerns. • Ensure written or verbal parental consent is obtained prior to otoscopy. 	
<p>3. Prior to otoscopy</p> <ul style="list-style-type: none"> • Infants and young children should sit on parent/caregiver's lap. Older children may prefer to stand or sit. • Ask the parent/caregiver to hold the child's head securely against their chest and use their other arm to secure the child's arms and body to stop any sudden movement. • Prepare the child for otoscopy by shining the light over their hand. 	
<p>4. Otoscopy procedure⁵</p> <ul style="list-style-type: none"> • Inspect the outer ear (pinna and lobe) for deviations from normal. <ul style="list-style-type: none"> ○ Observe around mastoid and under ear for infection, swelling or tenderness. • Choose the largest speculum that will fit comfortably into the auditory canal. • Hold the otoscope in such a way that you can brace your little finger against the child's head or cheek, to prevent any potential damage as a result of sudden movement by the child. A 'pencil grip' at an upward angle ranging from 11 o'clock to 1 o'clock from the child's ear, is recommended. • For infants gently pull down and back on the ear lobe to straighten the canal and for children, gently pull the pinna up and back. • Gently insert the speculum into the canal opening to the first canal turn, and just past the hairs. Inserting the speculum any further may cause pain and possible bleeding. • If discharge or wax from the first ear examined has contaminated the 	<ul style="list-style-type: none"> • The examiner's eyes should be at the same level as the child's ear. • If client reports ear pain or discharge is visible, do not proceed. • Consider the following when documenting the results of examination: <ul style="list-style-type: none"> ○ Normal external ear ○ Normal external auditory canal ○ Normal tympanic membrane ○ Excessive cerumen ○ Occlusion or impacted cerumen ○ Lesions ○ Discharge ○ Inflammation ○ Scaling ○ Scratches ○ Scarring ○ Swelling ○ Foreign body ○ Grommets ○ Offensive odour ○ Distorted or absent anatomical

Steps	Additional Information
speculum, use a clean speculum for the second ear.	landmarks <ul style="list-style-type: none"> ○ Deviations of the tympanic membrane: <ul style="list-style-type: none"> - Bulging - Retracted - Perforated – wet or dry - Fluid behind membrane ○ Other observations.
5. Video Otoscopy (if used) <ul style="list-style-type: none"> • Refer to step 3 for undertaking an otoscopy examination. • The external auditory canal must be dry, so that the video otoscopy lens does not fog up. • Situate the video otoscope so that the handle is in a vertical downward position at approximately 5 – 7 o'clock. • View image on the computer screen. • Capture image by pressing the camera button. • Label images with the client's name, and store in client's record according to CAHS-CH or WACHS processes. 	<ul style="list-style-type: none"> • Video otoscopy allows an image of the tympanic membrane to be displayed on a computer and viewed by children and their parents/caregivers, or it can be used as a component of telemedicine.² • Video otoscopy may be conducted in some settings by staff who have undertaken appropriate training. • Additional client consent may be required, when images are shared and/or in a videoconferencing format. Refer to local processes. • Refer to the manufacture instructions for operational and calibration details.
6. Communicate results with parents <ul style="list-style-type: none"> • If parent/caregiver present, discuss otoscopy findings including any concerns. • If parent/caregiver not present; <ul style="list-style-type: none"> ○ Contact to discuss if there are any concerns. ○ Provide results in writing using CHS409-6A <i>Results for parents</i> sheet or other relevant form. 	<ul style="list-style-type: none"> • If unable to contact parent/caregiver by phone, follow CAHS-CH and WACHS processes to provide effective communication with family.
7. Referral and review <ul style="list-style-type: none"> • Where results and clinical judgement indicate, provide referral to a medical practitioner or other health practitioner. • Discuss and seek consent for referral 	<ul style="list-style-type: none"> • Adherence to CAHS-CH and WACHS clinical handover processes is required when handing over, or referring a client within, or outside of, the health service. • Follow up with patents/caregivers to

Steps	Additional Information
from parent/caregiver. <ul style="list-style-type: none"> • Include otoscopy results in referral. Include audiometry results, if conducted. 	determine if the referral has been actioned.

Documentation

Community health staff will document relevant findings according to CAHS-CH and WACHS processes.

References

1. Coates H, Kong K, Mackendrick A, Bumbak P, Perry C, Friedland P, Morris P & Chunghyeon. *Aboriginal, Torres Strait Islander and Pacific Islander Ear Health Manual*. Perth: Garnett Passe and Rodney Williams Foundation, 2020.
2. Chiocca E. *Advanced Pediatric Assessment*. Second ed. New York: Springer Publishing Company; 2015.
3. Technical Advisory Group. *Otitis Media in Aboriginal and Torres Strait Islander Children*. Darwin: Menzies School of Health Research; 2020
4. Government of Western Australia. *WA Child Ear Health Strategy*. Perth; 2017.
5. Centre for Remote Health. 2017. *CARPA Standard Treatment Manual (7th edition)*. Alice Springs, NT: Centre for Remote Health.

Related policies, procedures and guidelines

The following documents can be accessed in the **Clinical Nursing Manual** via the [HealthPoint](#) link, [Internet](#) link or for WACHS staff in the [WACHS Policy](#) link

Audiometry

Clinical Handover - Nursing

Hearing and ear health

Physical assessment 0 – 4 years

School-aged health services - primary

School-aged health services - secondary

Tympanometry

Universal Contact - School Entry Health Assessment

Universal Contacts – 8 week, 4 months, 12 months, 2 years

Vulnerable populations

The following documents can be accessed in the CAHS-CH Operational Manual
Client identification
Consent for Services
Hand Hygiene
Infection Control manual
The following documents can be accessed in WACHS Policy
WACHS Ear tissue spearing, irrigation and ear drop installation procedure
WACHS Enhanced Child Health Schedule
The following documents can be accessed in the Department of Health Policy Frameworks
Clinical Governance, Safety and Quality

Related CAHS-CH forms
The following forms can be accessed from the CAHS-Community Health Forms page on HealthPoint
CHS409-1 SEHA Parent Questionnaire
CHS409-5 School Entry Health Consultation for Education Support Students
CHS409-6A <i>Results for parents</i>
CHS423 Ear Health Assessment Results
CHS423A School Ear Health Assessment – Results for Parents
CHS663 Clinical Handover/Referral
CHS 719 Ear Health Screening Consent

Related WACHS resources
The following resources can be accessed from WACHS Learning Management System
Ear Health Module 1 – Overview (EHOV EL1)
Ear Health Module 2 – Otoscopy (EHOT EL1)
Ear Health Module 3 – Tympanometry (EHTT EL1)
Ear Health Module 4 – Play Audiometry (EHPA EL1)

Ear Health Module 5 – Referrals (EHRE EL1)

Related external resources


Coates H, Kong K, Mackendrick A, Bumbak P, Perry C, Friedland P, Morrisw P & Chunghyeon, O. Aboriginal, Torres Strait Islander and Pacific Islander [Ear Health Manual](#). Perth: Garnett Passe and Rodney Williams Foundation, 2020.

[PLUM and HATS speech resource](#) – Pictures and questions to assist with talking to parents about hearing, speech and language, National Acoustic Laboratories.

[Blow-Breathe-Cough Program](#). Hearing Australia resources for teachers and early childhood educators to promote ear health.

[Care for Kid's Ears](#). A wealth of information and resources for parents, early childhood educators, teachers and health professionals. Includes material in several different language groups.

This document can be made available in alternative formats on request.

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