Clinical Task Instruction

Delegated Task

D-CH02: Tympanometry (226Hz)

Scope and objectives of clinical task

This CTI will enable the Allied Health Assistant to:

- safely and effectively conduct tympanometry.

Note: the local service should determine the minimum client age for delegation for this task. A different test protocol (1000Hz) and training requirements are required for infants under nine months of age. This CTI does not support training for clients under nine months.

VERSION CONTROL

Version:	1.2		
Reviewed: (Profession)	Statewide Audiology Directors Group	Date:	3/3/2026
Approved: (Operational)	Chief Allied Health Officer, Queensland Health	Date:	9/4/2026
Document custodian:	Chief Allied Health Officer, Queensland Health	Review date:	9/4/2029
Acknowledgements:	Community Hearing Screening Clinic – Healthy Hearing		

The CTI reflects best practice and agreed process for conduct of the task at the time of approval and should not be altered. Feedback, including proposed amendments to this published document, should be directed to the Office of the Chief Allied Health Officer (OCAHO) at: allied_health_advisory@health.qld.gov.au

This CTI should be used under a delegation framework implemented at the work unit level. The framework is available at: https://www.health.qld.gov.au/ahwac/html/ahassist

Prior to use please check https://www.health.qld.gov.au/ahwac/html/clintaskinstructions for the latest version of this CTI.

Requisite training, knowledge, skills and experience

Training

- Completion of CTI D-WTS01 When to stop.
- Completion of CTI D-CH01 Otoscopy.
- Completion of TAFE NSW The EarTrain Program. The following modules are relevant for this CTI:
  - Tympanometry for over 6 months of age

  Available at: https://www.tafensw.edu.au/eartrain
- Mandatory training requirements relevant to Queensland Health clinical roles are assumed knowledge for this CTI.

Clinical knowledge

- The following content knowledge is required by an allied health assistant delivering this task:
  - basic anatomy of the external ear, canal and eardrum
  - the purpose and rationale for performing tympanometry including risks
  - the process for conducting tympanometry including equipment set up, client positioning and documentation requirements
  - if required understanding of triage checklists, flowcharts and processes that support the local service model.
- The knowledge requirements will be met by the following activities:
  - completing the training program/s (listed above)
  - reviewing the Learning resource
  - receiving instruction from an allied health professional in the training phase.

Skills or experience

- The following skills or experience are not identified in the task procedure but support the safe and effective performance of the task and are required by an allied health assistant delivering this task:
  - If required for the local service model, competence in, or ability to train a carer to hold a young child to access the ears for tympanometry.

Safety and quality

Client

- The allied health assistant will apply CTI D-WTS01 When to stop at all times.
- In addition, the following potential risks and precautions have been identified for this clinical task and should be monitored carefully by the allied health assistant during the task:
  - if during the task the client indicates, or the carer is concerned the client is experiencing pain or discomfort in the area of examination, or if an ear canal has notable discharge or the skin in the auditory pathway is noted to be swollen, broken or inflamed, cease the examination of the affected ear. If the other ear is unaffected, replace the probe tip to avoid cross contamination and

examine the other ear. If part of the local service model, implement local processes for review of the affected ear by a medical practitioner e.g. inform the client to attend their general practitioner

- as tympanometry is used to assess ear drum and middle ear function, recordings should not be performed where grommets are present as results may vary significantly. If a grommet is present in one ear only, tympanometry can proceed in the opposite ear, providing the otoscopy for the ear is clear
- the client may be unable to remain still due to physical, intellectual or other problems. If prior to, or during examination, the client moves their head frequently, or becomes distressed, pause the task. Instruct the carer in the 'audiology hold position' to minimise movement during the task - see Learning resource section of CTI D-CH01: Otoscopy. Ensure the client remains still prior to recommencing the task and reinserting the probe tip. If an adequate seal is unable to be maintained after several attempts, cease the task. If part of the local service model, implement local processes for alternative hearing testing e.g. pure tone screening or TEOAEs.

Equipment, aids and appliances

- The tympanometer should be checked and be in working order at the start of every day. Check that the tympanometer is charged and that a range of probe tips are available. A biological and/or calibration cavity check should be performed daily.
- Calibration testing should occur as per manufacturers guidelines. If the machine is not in working order, outside calibration dates or fails the calibration check/s, cease the task. Locate alternative equipment if available. If no alternative equipment is available inform the client and carer and where relevant re-schedule the task. Inform the delegating health professional of equipment problems and implement local processes to have the equipment fixed/replaced.
- Examination of the ear is required prior to inserting a tip. For example, discharge in the ear canal can indicate risks for the client and may also damage the machine.
- For infection control, tympanometry tips are not shared between clients. A clean tip is required for each client. Follow local workplace procedures for management of used tips i.e. sterilisation or single use.

Environment

- Nil

Performance of clinical task

1. Delegation instructions

- Receive the delegated task from the health professional

  Note: the delegation instruction for this task may be provided directly from a health professional or as part of a local work instruction or clinical protocol. For an example, refer to the Community Hearing Screening Protocol Flow Chart and workplace instruction document listed in the Learning resource.
- The delegating allied health professional should clearly identify parameters for delivering the clinical task to the specific client, including any variance from the usual task procedure and expected outcomes.

2. Preparation

- Collect the:
  - tympanometer
  - probe tip
  - local recording form.

3. Introduce task and seek consent

- The allied health assistant introduces themself to the client.
- The allied health assistant checks three forms of client identification: full name, date of birth, plus one of the following: hospital unit record (UR) number, Medicare number, or address.
- The allied health assistant describes the task to the client. For example:
  - I am going to put this tip into your ears/your child's ear. Sit nice and still. It won't take long. You will hear a buzzing sound and feel a little tickle in your ear. This will screen the middle ear.
- The allied health assistant seeks informed consent according to the Queensland Health Guide to Informed Decision-making in Health Care, Version 2.6 (2025). If seeing clients under the age of 18 years this includes section 3: Informed decision-making for children and young persons for comprehensive information.

4. Positioning

- The client's position during the task should be:
  - in a supported sitting position e.g. chair, or for a child this may be on the carer's lap or in a stroller.
- The allied health assistant's position during the task should be:
  - beside the client in a comfortable position (seated or standing) that allows the machine and client's ear to be observed.

5. Task procedure

- Explain and demonstrate (where applicable) the task to the client.
- Check the client has understood the task and provide an opportunity to ask questions.
- The task comprises the following steps:
  1. Confirm the client is suitable for the task by checking that the client's otoscopy result is a "pass" and that a grommet is not present in the ear drum or ear canal. If otoscopy has not occurred as part of the session implement CTI D-CH01 Otoscopy, if a grommet is present, do not test the affected ear.
  2. Choose the correct probe tip size for the client and fit it to the tympanometer. See the Learning resource section.
  3. Determine if the client will need the audiology hold position - see the Safety and quality section. If required train the carer in the audiology hold position.
  4. To avoid confusion when recording information, the right ear is routinely examined first.
  5. Pull the ear out and backwards and insert the tip carefully into the client's ear canal observing for signs of discomfort. If noted cease the task.

6. Once the probe tip is inserted in the ear follow the manufacturer's instructions to collect a measurement. For example, some machines will commence collection automatically and others will require a button to be pressed.
7. When collection is complete, remove the probe and repeat steps 5-6 on the other ear (if relevant).
8. View tympanometry results (printed or digital) and identify the tympanogram type and allocate a type (A, B or C). If the type is unclear liaise with the delegating health professional prior to allocating the type.
9. Determine if results meet the criteria for a "pass" or "refer" as per the local protocol.
10. If part of the local service model, implement the care pathway management plan e.g. implements further hearing screening task or informs the client visit their general practitioner for review and management.

- During the task:
  - provide feedback and correct errors in the performance of the task including:
    - monitoring of the probe seal during the measuring process. The tympanometry measurement will be inaccurate if an airtight seal is lost. This may occur due to the probe being loose or falling out. If the seal is lost re-insert the probe tip and continue with measurement collection
    - tympanometry machines will monitor the seal. If an indicator indicates 'no seal' or 'seal broken' refer to the manufacturer's instructions
    - if the client starts crying, talking, eating or drinking during the examination this can result in a false peak. Instruct the client to keep still and quiet and provide reassurance e.g. 'please keep still and quiet, we are nearly finished'. If movement or vocalising does not cease, remove the probe tip. See the Safety and quality section.
  - monitor for adverse reactions and implement appropriate mitigation strategies as outlined in the Safety and quality section above including CTI D-WTS01 When to stop.
- At the conclusion of the task:
  - encourage feedback from the client on the task
  - provide summary feedback to client, emphasising positive aspects of performance and areas to work on. If part of the local service model, inform the client and/or carer of implications of observations.
  - ensure the client is comfortable and safe.

6. Document

- Document the outcomes of the task in the clinical record, consistent with relevant documentation standards and local procedures. Include observation of client performance, expected outcomes that were and were not achieved, and difficulties encountered or symptoms reported by the client during the task.
- For this task, the following specific information should be presented:
  - recording obtained for each ear tested, including tympanogram type (A,B or C)
  - outcome of the task i.e. "pass" or "refer".
- For protocol driven delegation, the local process may require co-signing and confirmation of actions against the approved management pathway by an audiologist before the report can be finalised.
- Follow local documentation requirements for record keeping including storage of results and use of record keeping forms. See the learning resource for an example.

7. Report to the delegating health professional

- Provide comprehensive feedback to the health professional who delegated the task.

References and supporting documents

- Children's Health Queensland Hospital and Health Service (2025). Healthy Hearing Community Hearing Screening - Model of Care V1.0 (Draft).
- Children's Health Queensland Hospital and Health Service (2014). Child and Youth Health Practice Manual, Statewide Child and Youth Clinical Network – Child Health Sub-Network. p85-89.
- Children's Health Queensland Hospital and Health Service (2017). Deadly Ears. The Ear and Hearing – Training Manual (Draft).
- Feeney, M.P & Sanford, C.A. (2008). Middle-Ear Measurements in Infants and Children. In Madell JR & Flexer C (Eds). Paediatric Audiology: Diagnosis, technology and management. (p115-122). Thieme: New York.
- Queensland Health (2015). Clinical Task Instruction D-WTS01 When to stop. Available at: https://www.health.qld.gov.au/ahwac/html/clintaskinstructions.
- Queensland Health (2025). Guide to Informed Decision-making in Health Care. Version 2.6. Available at: https://www.health.qld.gov.au/consent/clinician-resources/guide-to-informed-decision-making-in-healthcare.
- Queensland Health (2024). Healthy Hearing Program. Targeted Surveillance Program. Model of Care and protocol. Version 1.0 P10-14. Available at: https://www.childrens.health.qld.gov.au/__data/assets/pdf_file/0023/241916/Healthy-Hearing-Targeted-Surveillance-protocol.pdf

Assessment: performance criteria checklist

D-CH02: Tympanometry (226Hz)

Name: **Position:** **Work Unit:**

Performance criteria	Knowledge acquired	Supervised task practice	Competency assessment
	Date and initials of supervising AHP	*Date and initials of supervising AHP*	*Date and initials of supervising AHP*
Demonstrates knowledge of fundamental concepts required to undertake the task.			
Obtains all required information from the delegating health professional, and seeks clarification if required, prior to accepting and proceeding with the delegated task.			
Completes preparation for the task including obtaining relevant form and materials and ensuring client and environment are prepared for the task.			
Introduces self to the client and checks client identification.			
Describes the purpose of the delegated task and seeks informed consent.			
Positions self and client appropriately to complete the task and ensure safety.			
Delivers the task effectively and safely as per delegated instructions and CTI procedure. a) Clearly explains the task, checking the client's understanding. b) Confirms the otoscopy result is a "pass" and a grommet is not present in the eardrum or ear canal. If otoscopy has not occurred implements CTI D-CH01 Otoscopy. If a grommet is present, ceases the task. c) Chooses the correct probe tip size for the client and fits to the tympanometer. d) Determines if the client will need the audiology hold position. If required trains the carer in the audiology hold position. e) Assesses the right ear first unless variance from usual procedure is clinically indicated. f) Pulls the ear out and backwards and inserts tip carefully into the client's ear canal observing for signs of discomfort, removing if required. g) Once the probe tip is inserted in the ear follows the manufacturer's instructions to collect a measurement. h) When collection is complete, removes the probe and repeats steps f-g on the other ear (if relevant). i) Prints tympanometry results (paper or pdf). j) Correctly identifies the tympanogram type and allocates a type (A, B or C). k) Informs the client and carer of the result.			

l) If part of the service model identifies and implements any relevant protocol driven actions e.g. proceeds to further hearing screening tasks, medical review. m) During the task, maintains a safe clinical environment and manages risks appropriately. n) Provides feedback to the client on performance during and at completion of the task.			
Documents the outcomes of the task in the clinical record, consistent with relevant documentation standards and local procedures.			
Provides accurate and comprehensive feedback to the delegating health professional.			

Comments:

Record of assessment competence:

Assessor name:		Assessor position:		Competence achieved:	/ /

Scheduled review:

Review date:	/ /	

Tympanometry: Learning resource

Required reading

- Manufacturers guidelines for the tympanometry machine/s available for use in the local service.

Required viewing

- Open.Osmosis.org (2017). Eustachian tube dysfunction (ETD) – causes, symptoms, diagnosis, treatment, pathology. Available at: https://www.youtube.com/watch?v=H29571Ex-kY

Example local service model documents

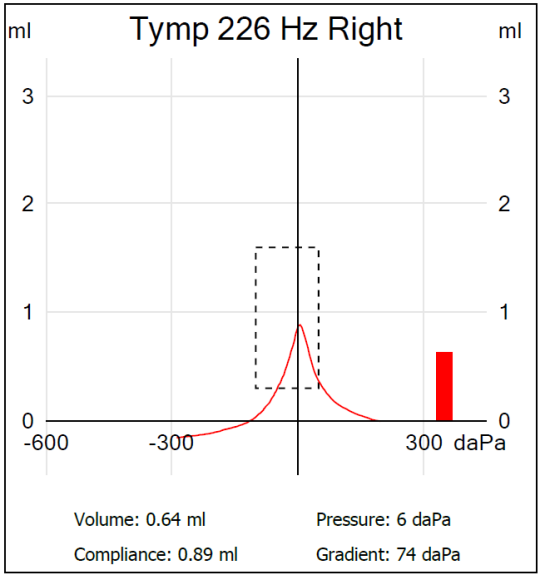
- Children's Health Queensland Hospital and Health Service (2025). (2025). Healthy Hearing Community Hearing Screening Clinic - Model of Care.
  Available by emailing: hearing.screening@health.qld.gov.au
- Queensland Health (2024). Healthy Hearing Program. Targeted Surveillance Program. Model of Care and protocol. Version 1.0 P10-14. Available at: https://www.childrens.health.qld.gov.au/__data/assets/pdf_file/0023/241916/Healthy-Hearing-Targeted-Surveillance-protocol.pdf

Tympanometry probe tip sizing

Choice of a probe tip is based on ensuring an adequate seal. If the manufacturer's instructions do not include a sizing chart or guidance on tip size selection the allied health assistant will need guidance and training on choosing a correct probe tip.

Example tympanometry classification

Below is an example of a training resource for correct tympanometry classification. The first two examples have been completed for the allied health assistant.



1. What type of tympanogram is this?

(circle the correct answer)

Type A (circled)

Type B

Type C

None of the above or can't be certain

3. Is it a 'pass' or a 'refer'?

(circle the correct answer)

Pass (circled)

Refer

Neither

2. Is anything else required to confirm this result?

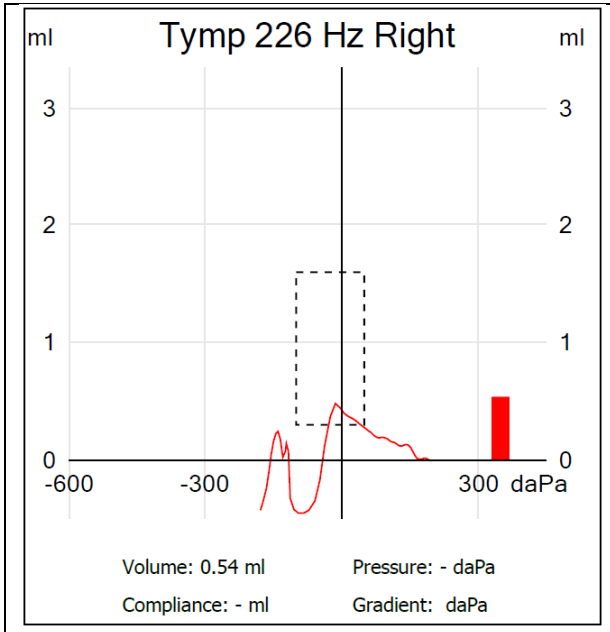
No, this is a well-defined trace and does not require repeat testing

4. What would you say to the child's caregiver?

'This is a pass on the middle ear screen'

'The eardrum is moving normally'

or similar



1. What type of tympanogram is this?

(circle the correct answer)

Type A

Type B

Type C

None of the above or can't be certain

2. Is anything else required to confirm this result?

This tymp is not flat but doesn't have a clear single peak so doesn't fit type A, B or C. Requires repeat testing to attempt to obtain a cleaner recording

3. Is it a 'pass' or a 'refer'?

(circle the correct answer)

Pass

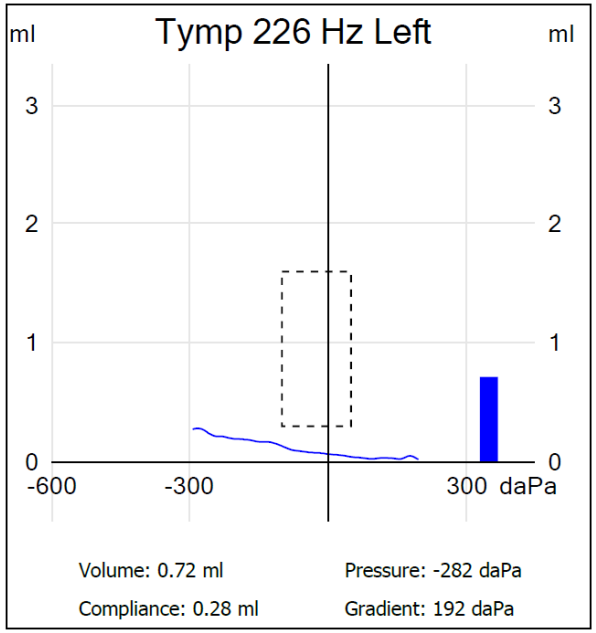
Refer

Neither

4. What would you say to the child's caregiver?

'We just need to redo this one'

or similar



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Type A

Type B

Type C

None of the above or can't be certain

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(circle the correct answer)

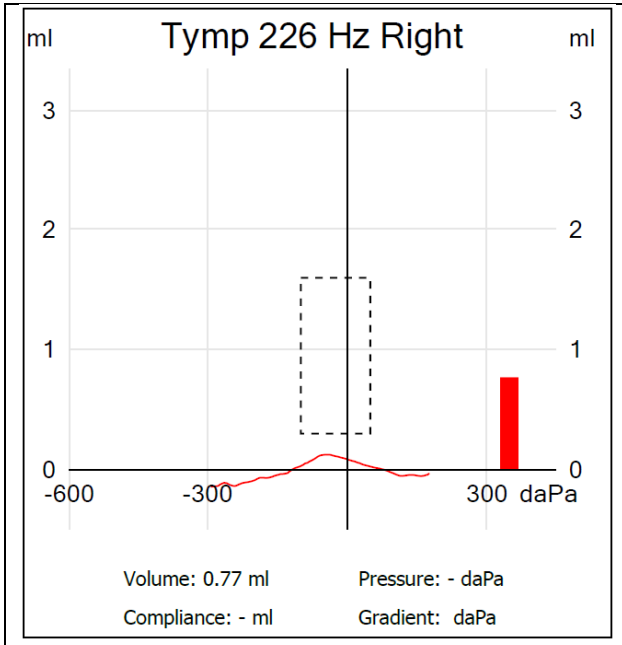
Pass

Refer

Neither

2. Is anything else required to confirm this result?

4. What would you say to the child's caregiver?



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(circle the correct answer)

Type A Type B

Type C None of the above or can't be certain

3. Is it a 'pass' or a 'refer'?

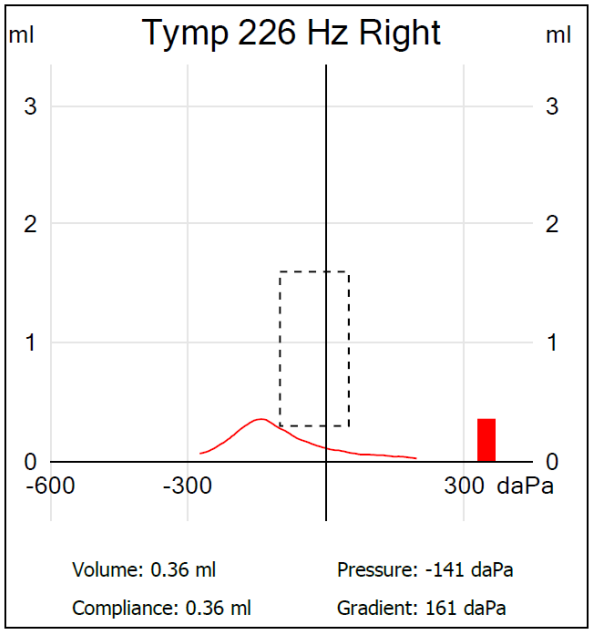
(circle the correct answer)

Pass Refer

Neither

2. Is anything else required to confirm this result?

4. What would you say to the child's caregiver?



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Pass

Refer

Neither

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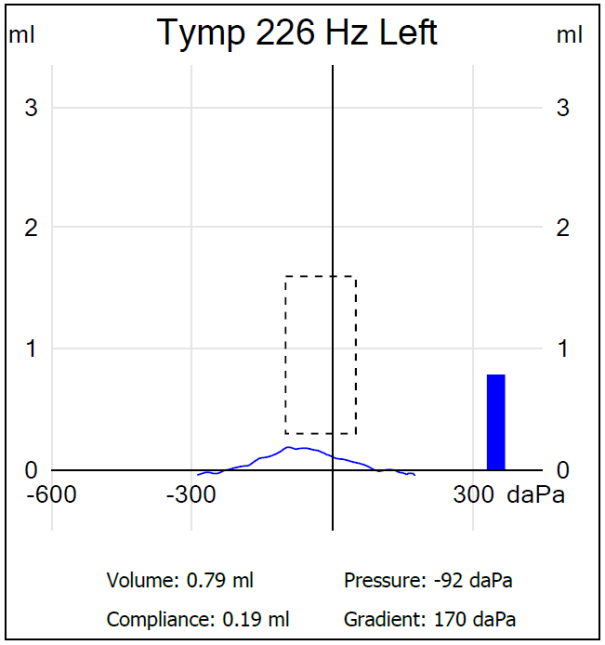

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Refer

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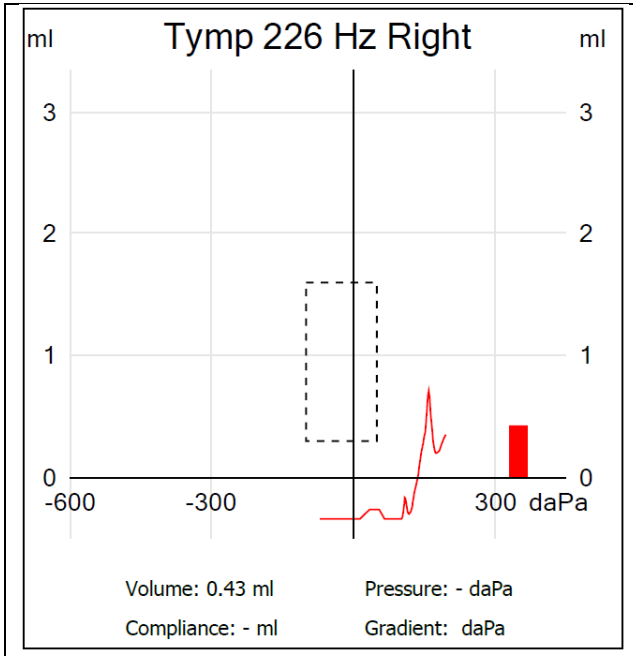

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Type C None of the above or can't be certain

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(circle the correct answer)

Pass Refer

Neither

2. Is anything else required to confirm this result?

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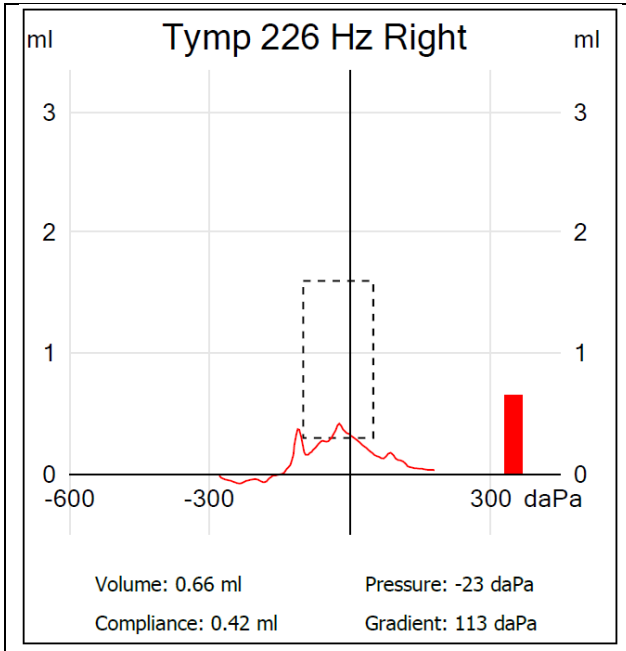

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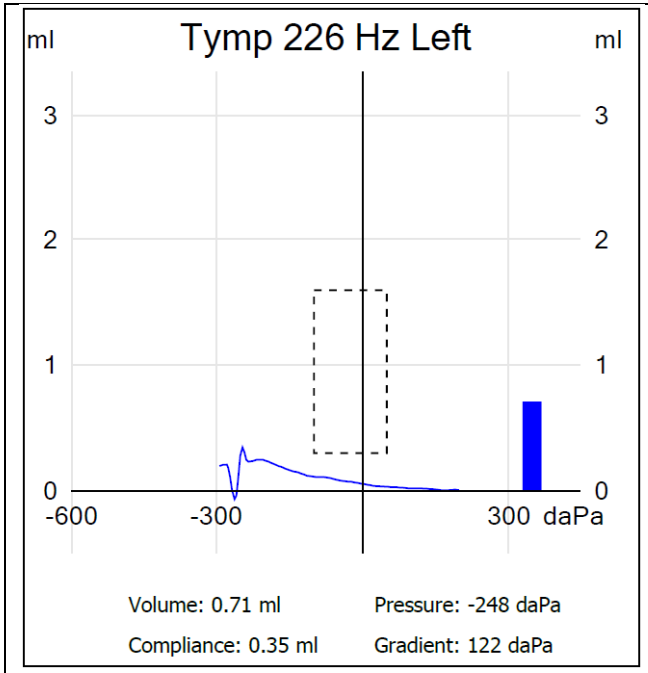

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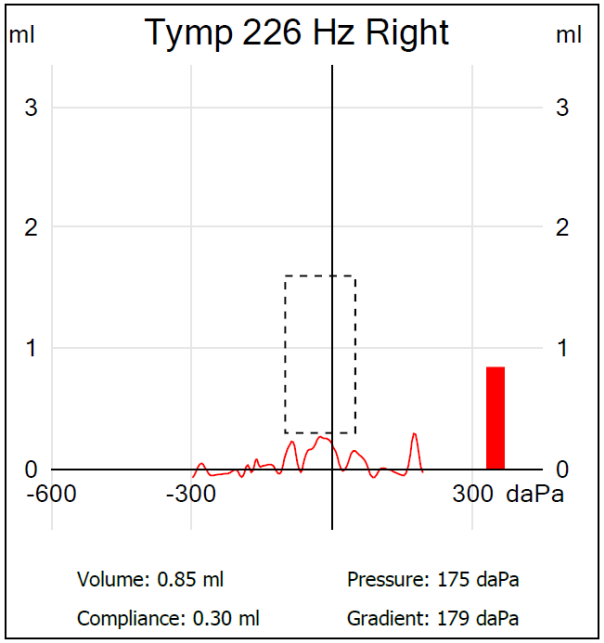

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Refer

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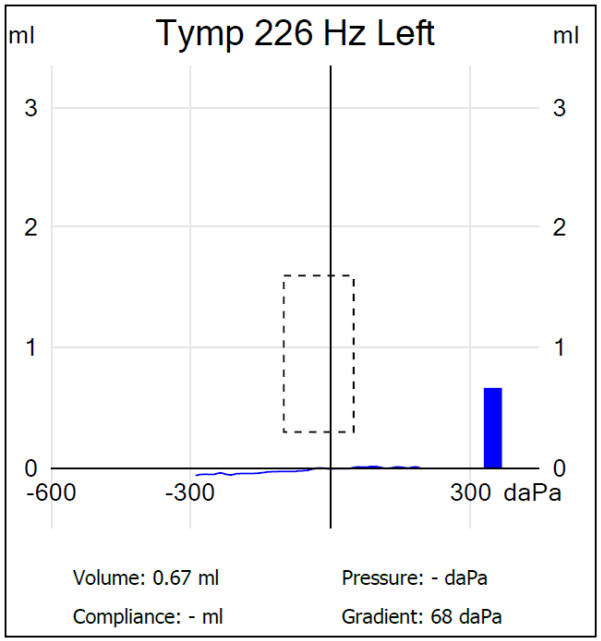

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(circle the correct answer)

Pass | Refer | Neither

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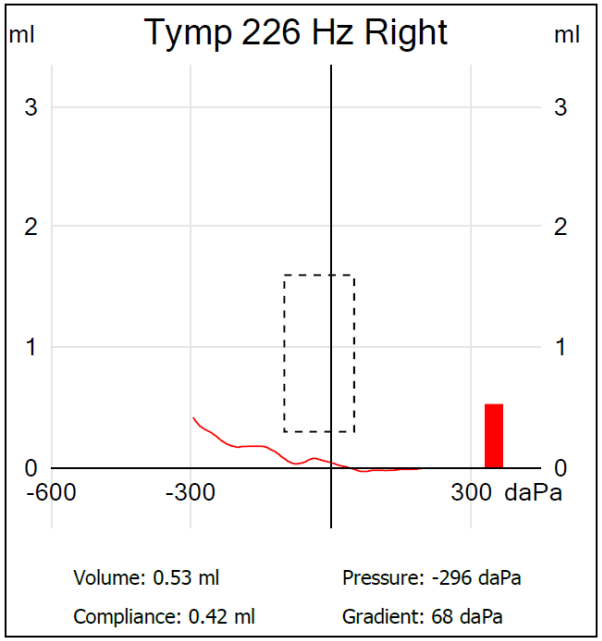

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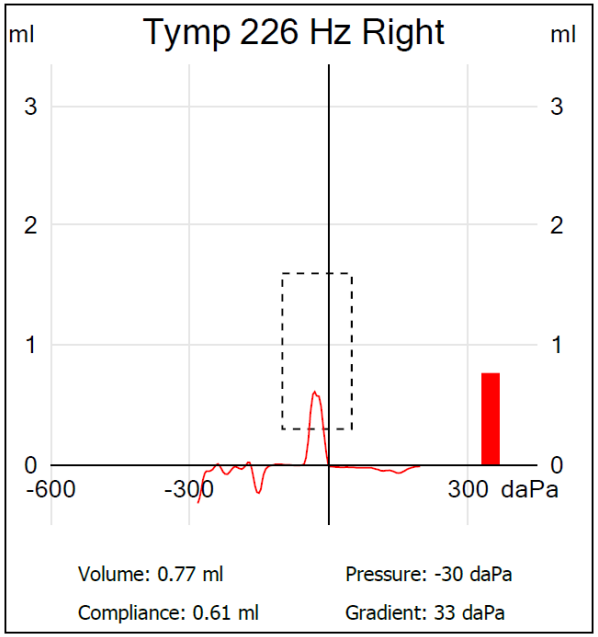

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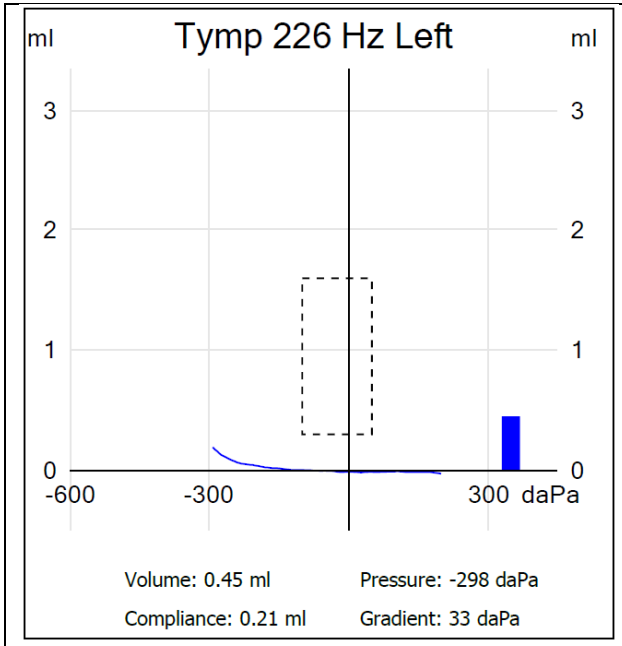

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Type C | None of the above or can't be certain

2. Is anything else required to confirm this result?

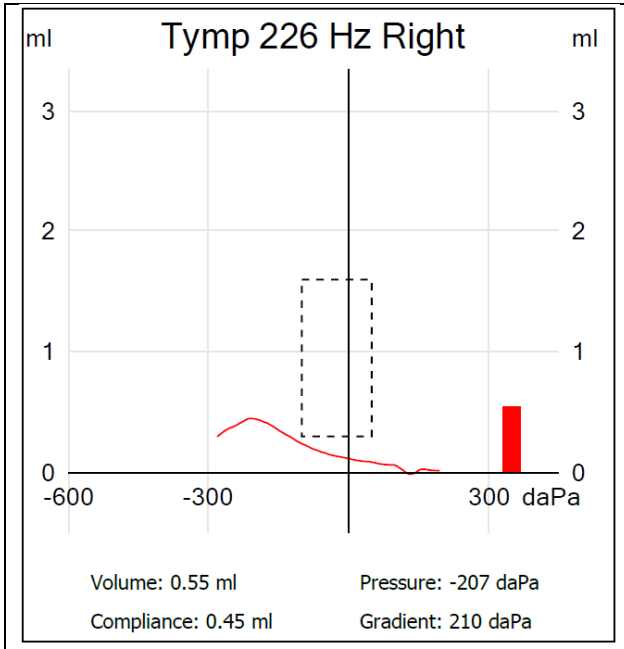
3. Is it a 'pass' or a 'refer'?

(circle the correct answer)

Pass | Refer

Neither

4. What would you say to the child's caregiver?



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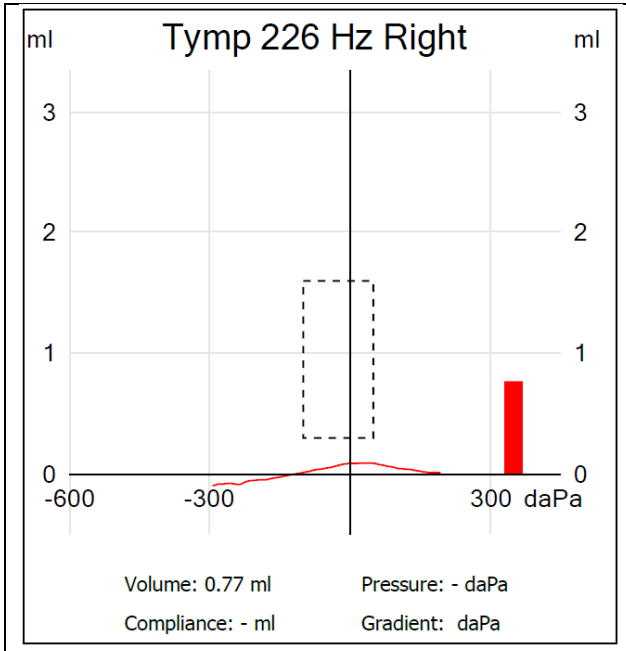

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