

D-SO03: Dysphagia – rehabilitation exercises

Scope and objectives of clinical task

This CTI will enable the Allied Health Assistant (AHA) to:

- safely and effectively educate/instruct and supervise clients undertaking dysphagia rehabilitation exercises including effortful swallow, Masako manoeuvre/tongue hold, Shaker (static and dynamic), Modified Shaker/ chin tuck against resistance (CTAR) and Mendelsohn's manoeuvre.
- explain the purpose of a dysphagia rehabilitation exercise program, facilitate and monitor correct performance.

VERSION CONTROL

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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 AHPOQ 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>

Please check <https://www.health.qld.gov.au/ahwac/html/clintaskinstructions.asp> for the latest version of this CTI.

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Requisite training, knowledge, skills and experience

Training

- Completion of CTI D-WTS01 When to stop
- Mandatory training requirements relevant to Queensland Health/HHS clinical roles are assumed knowledge for this CTI.
- Completion of the following Queensland Health allied health assistant training modules (or corresponding units of competency in HLT43015 Certificate IV in Allied Health Assistance) or equivalent work-based learning:
 - Speech Pathology Learner Guide: provide support in dysphagia managementAccess the module/s at: <https://www.health.qld.gov.au/ahwac/html/ahassist-modules>
- Completion of CTI D-SO02: Dysphagia – postural compensatory strategies, if the local service model includes the prescription of effortful swallow practice with food or fluid.

Clinical knowledge

The following content knowledge is required by an AHA delivering this task:

- basic elements of swallowing and common conditions that effect swallowing with a specific focus on those relevant to the client population in the local service e.g. stroke, chronic obstructive pulmonary disease, frail aged population
- understand the purpose of dysphagia exercises including correct performance and common performance errors and strategies used to correct for effortful swallow, Masako manoeuvre/tongue hold, Shaker (static and dynamic), Modified Shaker/CTAR and Mendelsohn's manoeuvre.

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 AHA delivering this task:

- competence in safely re-positioning a client from lying to sitting, including techniques for maintaining upright sitting in a bed or chair.

Safety and quality

Client

- The AHA 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 AHA during the task:
 - As clients are at risk of aspiration, close supervision is required during the task. If the client demonstrates signs of aspiration, cease the task, provide re-assurance, encourage the client to

cough and implement local workplace procedures e.g. inform the health care team and the delegating health professional that potential aspiration has been observed.

- dysphagia exercises require the client to commence in a starting position of symmetry and neutral spinal alignment. The delegation instruction will specify if this is in lying or sitting. If unclear about the starting position for the exercise liaise with the delegating health professional prior to commencing the task. If the client is unable to be positioned for example due to medical orders post-procedure, dizziness, fatigue, nausea, confusion, distress, discomfort or pain, cease the task and liaise with the delegating health professional. If during exercise performance the client's posture becomes asymmetrical, or they are unable to remain in sitting upright or lying, cease the task. Reposition the client using patient manual handling skills and recommence the task. If the client continues to be unable to maintain the correct posture, cease the task and inform the delegating health professional.
- The client will need to lie supine to perform the Shaker exercises. If the client finds lying down difficult, cease the task. This may be due to shortness of breath, pain or postural deformity e.g. postural kyphosis. Assist the client to sit up. Liaise with the delegating health profession to determine options including the introduction of a pillow or alternative exercises e.g. CTAR.
- The client may need to moisten their mouth when practicing the technique with saliva during an effortful swallow or Masako manoeuvre/tongue hold. Prior to commencing the task check the client's oral intake status. If the client's intake status does not match the delegation instruction, such as the client is nil by mouth (NBM) or the fluids texture or consistency is different to the delegation instruction, liaise with the delegating health professional before commencing the task. Prior to commencing the task confirm that the appropriate 'fluid' is available. If during task performance the client's mouth becomes dry, offer the client a sip of appropriate "fluid" to moisten the mouth. At the completion of the task check the oral cavity for any residue. If residue present ask the client to remove the residue with their tongue or finger. If fluid is still present seek support from nursing staff for oral cares.

Equipment, aids and appliances

- Ensure all equipment is clean and in good working order as per local infection control protocols. Refer to the manufacturer's guidelines for maintenance requirements e.g. check grips on cutlery have not loosened or perished, that rubber suction on plates are stable and that plate guards and sipper cup lids are fitted properly.
- If the client has hearing aids, glasses or dentures, these should be fitted prior to commencing the task. If the client has difficulty fitting devices, provide assistance. If uncertain about fitting requirements, seek guidance from a healthcare professional.
- As the client may require assistance for fitting dentures or removing food residue from the oral cavity, it is advisable to either wear gloves or have them readily available.

Environment

- Nil

Performance of Clinical Task

1. Delegation instructions

- Receive the delegated task from the health professional.
- 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. This may include:
 - the exercise/s to be performed e.g. effortful swallow, Masako manoeuvre/tongue hold, etc.
 - the position for exercise performance
 - any variances to standard exercise performance or specific client considerations e.g. communication aids/appliances, use of an interpreter, dentures, presence of nasogastric/oxygen tubes or restrictions
 - the frequency, number of repetitions, sets, duration (hold time) and resistance for each exercise
 - if fluids are to be used in the session including their texture and consistency, any equipment including cutlery, sipper cup, theraband, ball or neckline slimmer.

2. Preparation

- Client exercise handout and any required fluids and equipment
- If performing the Shaker technique access to a bed/plinth

3. Introduce task and seek consent

- The AHA introduces him/herself to the client.
- The AHA checks three forms of client identification: full name, date of birth, *plus one* of the following: hospital UR number, Medicare number, or address.
- The AHA describes the task to the client. For example:
 - “I have been asked me to do some swallowing therapy with you. This may help your eating and drinking. This will involve practicing your swallowing, moving your head or moving your tongue in different ways to make them stronger”.
- The AHA seeks informed consent according to the Queensland Health Guide to Informed Decision-making in Health Care, 2nd edition (2017).

4. Positioning

- The client’s position during the task should be:
 - initially sitting upright in bed or in a supportive chair. The clients head should be positioned in midline over the trunk and chin slightly tucked downwards. If in bed ensure that the client’s bottom is positioned near to the base of the backrest and the client has a knee break before setting the back rest to upright e.g. pillow under knees so they are comfortably flexed. If the client is sitting in a chair ensure the client’s bottom is at the back of the chair and the client’s feet are flat on the floor or supported on a footrest.
 - if performing the Shaker exercises the client will need to be re-positioned to lying supine without a pillow for exercise performance.

- The AHA's position during the task should be:
 - seated or standing beside the client in a position to demonstrate the exercises and observe the client's performance. If the client is in a bed the height should be adjusted to suit the AHA.

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. This may include asking the client to demonstrate the exercise.
- The task comprises the following steps:
 1. Observe the client's posture. See 'Positioning' and 'Safety and quality' section.
 2. Explain how to perform the planned program for each individual exercise including the goal, expected outcome, position, number of sets, repetitions, level of resistance. See the 'Learning resource' for specific details for each exercise.
 3. Demonstrate how to perform each exercise.
 4. Ask the client to perform the exercise, providing feedback.
 5. Follow the training program described by the delegating health professional.
- During the task:
 - provide feedback and correct errors in the performance of the task using the delegation instruction and knowledge of common errors as a guide. This may include:
 - providing verbal correction for poor performance. See Table 1 in the 'Learning resource'. If problems persist, cease the task and liaise with the delegating health professional.
 - counting repetitions/noting the time elapsed for the client and indicating when to rest.
 - monitoring of posture during exercise performance. See 'Safety and quality'.
 - observing for signs of fatigue, distress, discomfort or pain such as being unable to complete the specified number of repetitions. If problems are observed, pause the exercise and monitor the client's symptoms. See the 'Safety and quality' section. If symptoms ease, ask the client if they are able to continue with the same exercise, or alternatively the next exercise. If not, cease the task. If able, continue with the exercise program. If symptoms persist cease the task. If the client is unable to complete the required number of repetitions, note the number of repetitions that were achieved, the reported symptom and any action taken. Provide information on exercise performance to the delegating health professional.
 - The client may experience discomfort in the neck or throat during the Shaker exercise. This may be due to musculoskeletal problems in the cervical spine and/or jaw. Cease the task and check the clients position and monitor symptoms. If symptoms ease, continue with the exercise. If symptoms persist, cease the task and liaise with the delegating health professional for alternative exercise options and positions e.g. Modified Shaker/CTAR.
 - 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 e.g. going slow or holding the movement
 - if part of the delegation instruction, provide instructions for independent practice of the task including reinforcing safety considerations

- 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:
 - the name of each exercise practised including the number of repetitions, sets, duration of hold completed and resistance applied for each exercise, any difficulties experienced and/or monitoring requirements.

7. Report to the delegating health professional

- Provide comprehensive feedback to the health professional who delegated the task, including:
 - observations of client performance, expected outcomes that were and were not achieved and difficulties encountered or symptoms reported by the client during the task. The AHA may also provide observations to the health professional that supports changes to the program such as the need to progress an exercise.

References and supporting documents

- Queensland Health (2015). Clinical Task Instruction D-WTS01 When to stop.
<https://www.health.qld.gov.au/ahwac/html/clintaskinstructions.asp>
- Queensland Health (2017). Guide to Informed Decision-making in Health Care (2nd edition).
https://www.health.qld.gov.au/_data/assets/pdf_file/0019/143074/ic-guide.pdf

Assessment: Performance Criteria Checklist

D-SO03: Dysphagia – rehabilitation exercises

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 collecting the client exercise handout and equipment, setting up the practice environment and checking the clients functional and medical status.			
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.			
<p>Delivers the task effectively and safely as per delegated instructions and CTI procedure.</p> <p>a) Clearly explains the task, checking the client's understanding.</p> <p>b) Implements the prescribed exercise program by:</p> <ul style="list-style-type: none"> - appropriately describing and/or demonstrating the exercise - correctly positioning the client for the exercise - accurately monitors the clients' performance during the task - provides timely, accurate and appropriate feedback during the task. <p>c) Determines client's capacity to participate in each prescribed activity before commencing.</p> <p>d) Reinforces exercises with the client by referring to the client handout/s.</p> <p>e) During the task, maintains a safe clinical environment and manages risks appropriately</p> <p>f) Provides feedback to the client on performance during and at completion of the task.</p>			

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 on the local service model:

The allied health assistant has been trained and assessed as competent in the following dysphagia exercises:

- Effortful swallow
- Masako manoeuvre/tongue hold
- Shaker static
- Shaker dynamic
- Modified Shaker/Chin Tuck Against Resistance (CTAR)
- Mendelsohn's manoeuvre

Other:

- _____
- _____

Comments:

Record of assessment competence:

Assessor name:	Assessor position:	Competence achieved: / /
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Scheduled review:

Review date: / /

Dysphagia – rehabilitation exercises: Learning resource

Dysphagia rehabilitation exercises are designed to improve the strength and timing of particular muscles and movements to improve swallowing.

Required reading

- American Speech-Language-Hearing Association (2018). Adult Dysphagia: Treatment. Available at: <https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589942550§ion=Treatment>
- Vose A, Nonnenmacher J, Singer ML, Gonzalez-Fernandez M (2014). Dysphagia management in acute and sub-acute stroke. Current Physical Medical and Rehabilitation Reports 2(4):197-206. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4608439/>
- Orientation and familiarisation with local resources for:
 - dysphagia rehabilitation exercises including client handouts, posters and models

Example client handouts/resources

- National Foundation of Swallowing Disorders. Available at: <https://swallowingdisorderfoundation.com/oral-swallowing-exercises/>
- Speech pathology statewide exercise resources. (QH employees only). Available at: <https://qheps.health.qld.gov.au/alliedhealth/html/professions/speech-pathology-collaboratives>

Required viewing

Effortful swallow

- Medbridge (2019). Effortful swallow. Available at: <https://www.medbridgeeducation.com/patient-education-library/condition/2667-Effortful-Swallow>
- Therapedia (2017). Effortful swallow. Available at: <https://www.youtube.com/watch?v=wKmJdCe7aKs>

Masako manoeuvre/ tongue hold

- Therapedia (2017). Masako exercise. Available at: https://www.youtube.com/watch?v=XdSLcqfS_dU
- The Speech Therapy Group (2015). Masako exercise. Available at: <https://www.youtube.com/watch?v=7nW-4TuW1GM>

Shaker (static)

- Eric Liang (2017). Shaker exercise demonstrations. Available at: <https://www.youtube.com/watch?v=eGkqiC6nZyc> (time 0:00)
- The Speech Therapy Group (2015). Shaker Exercise #1. Available at: <https://www.youtube.com/watch?v=d1ThTZhAncY>

Shaker (dynamic)

- Eric Liang (2017). Shaker exercise demonstrations. (scroll to time 1:25)
Available at: <https://www.youtube.com/watch?v=eGkqiC6nZyc>

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- The Speech Therapy Group (2015). Shaker Exercise #2. Available at:
<https://www.youtube.com/watch?v=jS-L4Obwik0>

Modified Shaker/CTAR

- Eric Liang (2017). Chin Tuck Against Resistance (CTAR). Available at:
https://www.youtube.com/watch?v=PqgxP4_QSL0
- The Christie NHS Foundation Trust (2017). Chin Tuck Against Resistance (CTAR). Available at:
<https://www.youtube.com/watch?v=QmHFCuyKdH4>

Mendelsohn manoeuvre

- Therapedia (2017). Mendelsohn manoeuvre. Available at:
https://www.youtube.com/watch?v=NHZ5g8roe_A

Optional viewing

- National Foundation of Swallowing Disorders. Available at:
<https://swallowingdisorderfoundation.com/oral-swallowing-exercises/>

The principles of dysphagia exercises and the differences between them are presented in Table 1. The table also describes common performance errors and useful strategies to correct them;

Table 1 Principles of dysphagia rehabilitation exercises

Exercise	Common performance errors	Common strategies to correct performance errors
<p>Effortful swallow</p> <p>Aims to make the muscles of swallowing stronger and therefore help food and drink to move to the stomach more safely.</p> <p>How to do it:</p> <p>Have the client squeeze hard with their swallowing muscles when they swallow.</p> <p>Ask the client to:</p> <ol style="list-style-type: none"> 1. Squeeze their muscles with their chin tucked down 2. Squeezing hard with their tongue and throat muscles 3. Instruct them to feel the effort of the muscles working in their neck when they swallow 	<ul style="list-style-type: none"> • The client reports an inability to initiate a swallow due to a dry mouth sensation 	<ul style="list-style-type: none"> • Encourage the client to take a sip of fluid between attempts. See 'Safety and quality' section. Re-trial the exercise.
<p>Tongue Hold/Masako Manoeuvre</p> <p>Aims to strengthen the muscles at the back of the tongue and the top part of the throat to assist with driving food and fluids past the throat and into the food pipe.</p> <p>How to do it:</p> <ol style="list-style-type: none"> 1. Place the tongue between the front teeth 2. Keep holding the tongue between the teeth and instruct the client to swallow their saliva 	<ul style="list-style-type: none"> • The client is unable to keep their tongue between their teeth during swallowing • The client reports an inability to initiate a swallow due to a dry mouth sensation 	<ul style="list-style-type: none"> • Encourage the client to bite down gently to maintain tongue protrusion during swallow. If problems continue have the client hold their tongue between two fingers using a piece of gauze. • Encourage the client to take a sip of fluid between attempts. See 'Safety and quality' section. Re-trial the exercise.

Exercise	Common performance errors	Common strategies to correct performance errors
<p>Shaker (static) Aims to strengthen the swallow muscles responsible for pulling the hyoid bone up and forward during swallowing. This helps to protect the airway during swallowing and can reduce build-up of food and fluid in the throat. How to do it: Lie the client flat on their back (on the floor or on a bed)</p> <ol style="list-style-type: none"> 1. Instruct the client to tuck their chin down 2. Then have them slowly lift their head up towards their chest without moving their shoulders off the floor or bed 3. Have the client raise their head enough that they can see your toes 4. Hold time in the position for: Static Shaker is 30 seconds to one minute. If unable to, hold for as long as the client is able to. <i>Do not hold this position for longer than one minute.</i> Dynamic Shaker is 1-3 seconds. 5. Next, lower your head and relax for at least one minute. 	<ul style="list-style-type: none"> • The client moves their chin forward instead of lifting their head off the bed/plinth. • The client does not initiate the movement of moving the head forward with the chin in a retracted position i.e. rolls the head forward (chin to chest) instead of initiating the movement with protrusion 	<ul style="list-style-type: none"> • Verbally the prompt 'lift up your head and try and look at your toes'. • Verbally prompt 'lift up your head and try and look at your toes', "keep your chin in whilst you try and lengthen the back of your neck"
<p>Modified Shaker/CTAR Aims to strengthen the swallow muscles responsible for pulling the hyoid bone up and forward during swallowing. This helps to protect the airway during swallowing and can reduce build-up of food and fluid in the throat. It provides an alternative exercise for those which may not be suitable for the Shaker.</p>	<ul style="list-style-type: none"> • The client incorrectly positions/uses the method of resistance e.g. lets the towel fall away or the ball drop • The client leans forward from the shoulders instead of moving the chin to the chest with resistance against the ball. 	<ul style="list-style-type: none"> • Redemonstrate the position and the direction of force. • It may be useful to support or hold the resistance in place. • Verbally prompt "stay sitting still in the chair only move your chin down to your chest pushing against the ball until you feel some effort in your neck." You should not feel pain but may get tired muscles.

Exercise	Common performance errors	Common strategies to correct performance errors
<p>How to do it:</p> <ol style="list-style-type: none"> 1. Position the client sitting upright in a chair 2. Use a method of providing resistance to tuck the chin e.g.an inflated ball, theraband, rolled up towel or clients hand pushing up against their chin 3. With the resistance in place under the chin, instruct the client to try and tuck their chin towards their chest, hold for 10 secs, then relax 	<ul style="list-style-type: none"> • Inappropriate resistance size resulting in ineffective practice. This may occur if the clients neck is long or short or the resistance is too large or small. 	<ul style="list-style-type: none"> • Check the client and resistance position is correct and the client can feel effort/fatigue. If ineffective liaise with the delegating health professional regarding a larger or smaller resistance.
<p>Mendelsohn’s Manoeuvre</p> <p>Aims to prolong laryngeal elevation thereby increasing the duration of cricopharyngeal opening. It does not impact on the diameter on the upper oesophageal opening.</p> <p>How to do it:</p> <ol style="list-style-type: none"> 1. Have the client focus on feel their larynx (voice box) 2. Instruct them to swallow and try to hold their voice box in the highest position it reaches during their swallow for a few extra seconds. 3. Relax 	<ul style="list-style-type: none"> • It is not uncommon that the client is unable to hold the larynx in a higher position 	<ul style="list-style-type: none"> • Re-explain to try to feel when the larynx is high under their chin and try to hold it for a couple of extra seconds during the swallow