Post-Stroke Dysphagia: Oral Motor Exercise

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Equipment
- Patient's medical record
- Chair, plinth, mirror
- Air-filled bulb, oral screen (with pulling loop)

Recommended Practice

Purpose
Oral motor exercises support the maintenance and strengthening of the oral cavity for persons with dysphagia following a stroke.

Special considerations (OR Contraindication)
- Adapt swallowing exercises to the individual's needs, abilities and preferences and the specific swallowing impairment.
- Regular therapy is recommended including skill and strength training in direct therapy (with food/fluids) and indirect motor therapy.
- The patient's medical history should be used together with information gathered from history taking and physical examination. The information should be gathered from the patient and relevant health care professionals, family and carers and documented using appropriate standards for a legal recording of the patient-therapist interaction.

Procedure
1. Explain the procedure and seek the patient’s consent.
2. Perform hand hygiene according to the 5 moments of hand hygiene e.g., before and after touching a patient, device or object.
3. The individual should be comfortably positioned, seated in a chair with the body and head in a strictly upright position. The feet should be supported and if able, the knees flexed at right angles.
4. Conduct the following swallow exercises over a period of 4-6 weeks post stroke.

- **Lingual exercise**: Lingual exercise is performed by the compression of an air-filled bulb between the tongue and the hard palate. Exercise for anterior and posterior portions of the tongue can be performed for 10 repetitions (anterior then posterior), 3 times a day, for 3 days per week. The initial intensity can be set at 60% of 1-RM and progressed gradually for up to 80% of the 1-RM.

- **Chin tuck against resistance**: Place an inflatable ball, or other resistance-based device under the chin of the patient strength and ask them to hold it in position (sustained exercise) for a duration as guided by the patient's current maximum chin tuck strength. Rest for 1 minute between repetitions. For isokinetic
exercises, instruct the patient to push down on the resistance device for a series of sets and repetitions, holding for 1-2 seconds. Sets and repetitions are guided by the individual's initial strength.

- **Lip muscle training:** A standardized oral screen (with a pulling loop) made of acrylic is placed pre-dentally behind closed lips. The individual is instructed to withhold the screen against the horizontal, gradually increasing pulling for 5-10 seconds while trying to resist the force by tightening the lips and pressing the head backwards against a head rest. The pulling is performed 3 times per session and 3 times daily before mealtimes. When the individual is unable to hold the oral screen, the therapist assists with the traction force.

- **Mendelsohn Maneuver:** The individual is asked to swallow their saliva a few times and for them to pay attention to the movement of the larynx (voice box) when they swallow. Individuals can be instructed to put their fingers gently on their larynx as they swallow. The patient is asked to swallow and when they feel their larynx go up, they will have to ‘squeeze’ with the muscles of their throat and hold the larynx at the peak of the swallow. A successful Mendelsohn swallow means the patient can swallow and sustain laryngeal elevation for approximately 2 seconds or greater. About 30 successful swallows are encouraged per session.

**Supporting Evidence Summaries**

- Post-Stroke Dysphagia: Swallowing Exercises

**Archived Publications**

1. JBI-RP-4185-2 (Published at 14 April 2023)
2. JBI-RP-4185-1 (Published at 30 April 2021)