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# Therapeutic exercises for affecting post-treatment swallowing in people treated for advanced-stage head and neck cancers: a Cochrane systematic review.

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# THERAPEUTIC EXERCISES FOR AFFECTING POST-TREATMENT SWALLOWING IN PEOPLE TREATED FOR ADVANCED-STAGE HEAD & NECK CANCERS: A COCHRANE SYSTEMATIC REVIEW

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## Background

- **Head and neck cancer** encompasses tumours of upper aero-digestive tract (oral cavity, pharynx, larynx, nasal cavity, paranasal sinuses and salivary glands).
- Globally, **550,000 new cases** per year.<sup>[1]</sup>
- Majority are **mucosal small cell carcinoma**.<sup>[2]</sup>
- Associated with **smoking, alcohol abuse** and **viral infection**.<sup>[3]</sup>
- Survival rates improving **but morbidity** has correspondingly increased (speech, swallowing).
- **Dysphagia** may be temporary/long term or permanent.
  - Impacts on food/fluid intake, social participation and psychological wellbeing.

## Objectives

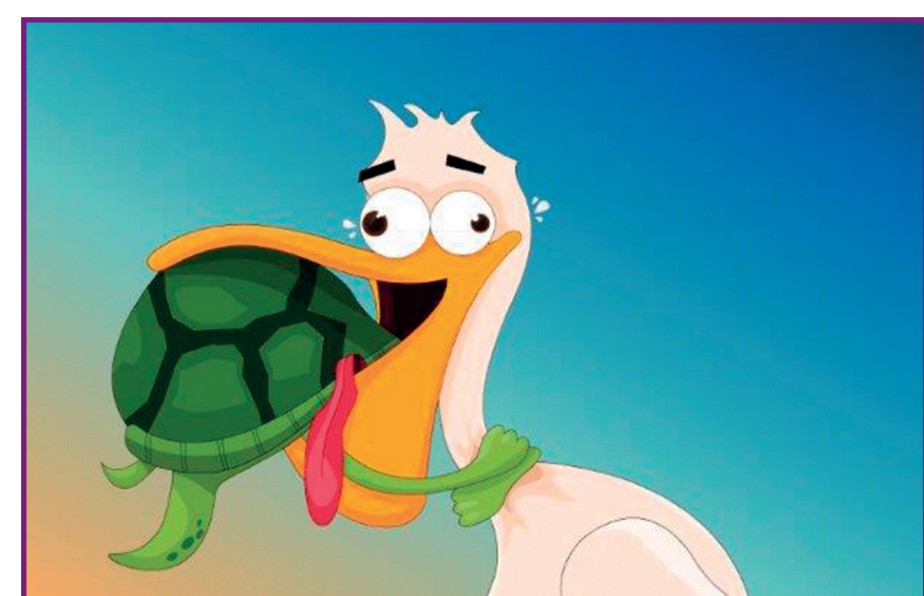
To establish the evidence for the effects of therapeutic swallowing exercises, undertaken before, during and/or immediately after head and neck (HNC) treatment, on swallowing.

## Primary Outcomes

- Safety and efficiency of oral swallowing, measured by reduced/no aspiration; oropharyngeal swallowing efficiency (OPSE) measures, taken from videofluoroscopy swallowing studies, and adverse events, such as chest infections, aspiration pneumonia and profound weight loss.

## Results

- Six studies (reported as seven papers) met inclusion criteria, three studies from USA, two from the Netherlands and one from Denmark.
- All RCTs evaluated effectiveness of a swallowing exercise on swallowing outcomes, against either treatment as usual (TAU) or a 'sham' intervention.
- 326 participants whose ages ranged from 39 to 83 years, with a gender bias towards men (73% to 95% across studies).
- The risk of bias in the studies was generally high.
- Small participants numbers in trials and insufficient power to detect any difference.
- Data could not be combined due to differences in the choice of primary outcomes and in the measurement tools used to assess them and the differing baseline and endpoints across studies.



## Conclusions

- No evidence exists that undertaking therapeutic exercises before, during, and/or immediately after head and neck cancer treatment leads to an improvement in oral swallowing.
- Using GRADE, the overall quality of the evidence was very low with no adverse events reported.
- Designing and implementing studies with stronger methodological rigour is essential. Agreement on key primary outcomes, choice of validated assessment tools and the time points at which measurements are made is required.

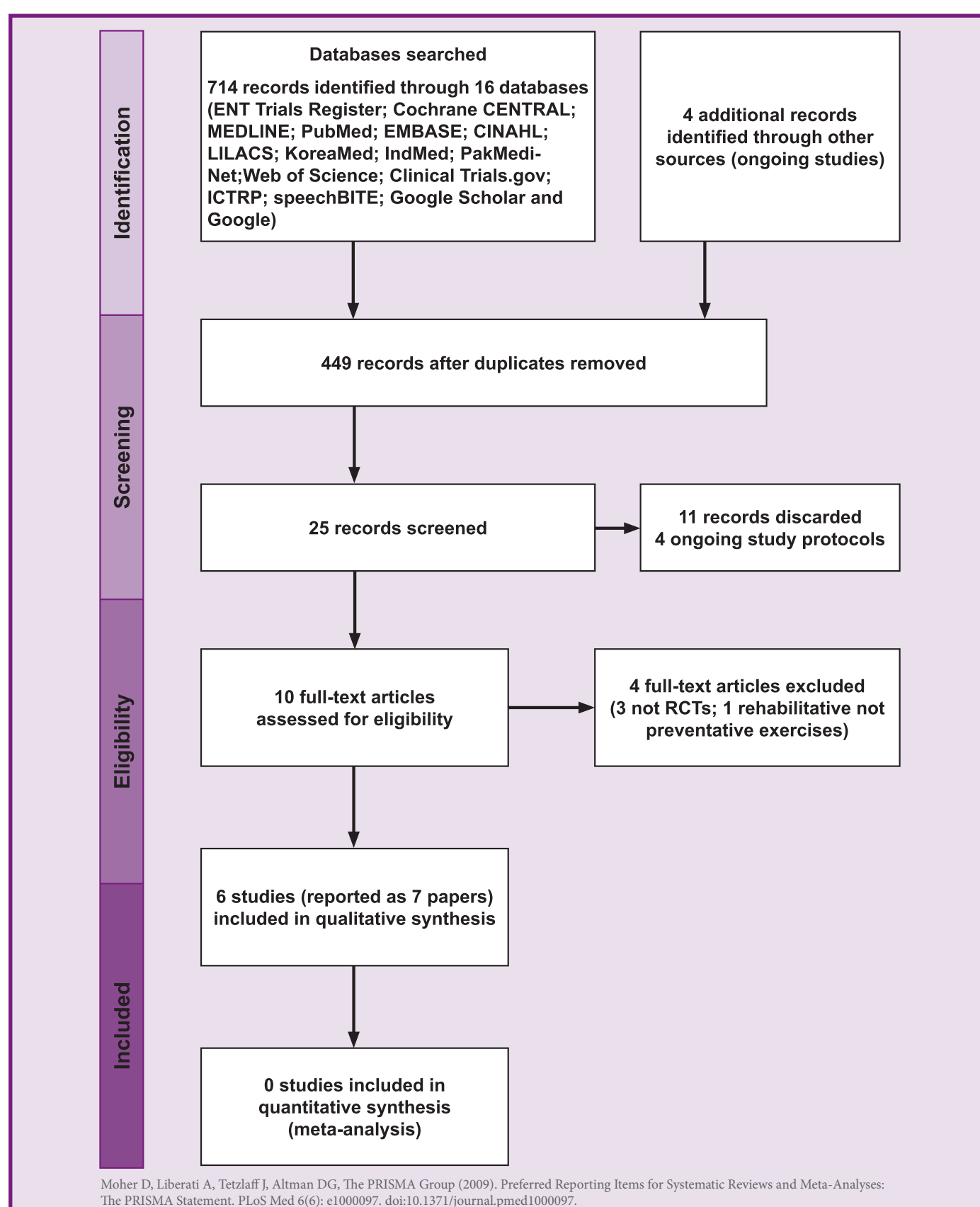


Figure 1: PRISMA Flow Diagram.

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