Methods

Search Strategy

Online databases (PubMed, Web of Science and Scopus) were searched using the following search terms: (free water protocol) OR (oral intake of water) AND (dysphagia) OR (thin liquid aspiration) AND (quality of life)

Selection Criteria

Studies selected for inclusion were required to contain the implementation of a water protocol in patients with thin liquid aspiration and evaluate the impact on health-related quality of life.

Studies were limited to adult patients (over the age of 16) with thin liquid aspiration identified via a bedside swallowing examination (BSE) videofluoroscopic Swallowing Study (VFSS) and/or fiberoptic endoscopic evaluation of swallowing (FEES).

Data Collection

The results of the literature search yielded eight studies that met the selection criteria: five randomized control trials, one single group study, and two conference abstracts.

Results

Carlaw at al. (2012) conducted a small prospective randomized control trial to compared the occurrence of adverse events, fluid intake, and quality of life in adults with dysphagia randomized to either a water protocol implementation group (n=9) or a delay

have been liberal, given the small sample size. The lack of a control group and the short duration of monitored implementation are also weaknesses of this study.

Results revealed a significant difference in the survey questions related to quality of drinks, hydration and oral mouth care. However, no significant difference was found in general well-being between pre- and post-

results. This conference abstract provides equivocal evidence to this critical review as not enough information is provided to properly evaluate the study.

In a conference abstract, **Schwarz et al. (2017)** describe a study that will investigate the barriers and facilitators of implementing a water protocol in a rehabilitation unit. This study hopes to collect information on incidence of compliance with oral care regime, oral hygiene ratings, adverse events, fluid intake, and staff and patient satisfaction surveys. The conference abstract provides minimal details about the study, and therefore it is not possible to judge the appropriateness of their methods. As this study has not been completed, it currently provides equivocal evidence to this critical review.

Garcia, J. M., Chambers, E., & Molander, M. (2005). Thickened liquids: Practice patterns of speech-language pathologists. *American Journal of Speech-Language Pathology, 14*(1), 4-13.

Garon, B. R., Engle, M., & Ormiston, C. (1997). A randomized control study to determine the effects of unlimited oral intake of water in patients with identified aspiration. *Journal of Neurologic Rehabilitation, 11*(3), 139-148.

Gillman, A., Winkler, R., & Taylor, N. F. (2017). Implementing the free water protocol does not result in aspiration pneumonia in carefully selected patients with dysphagia: A systematic review. *Dysphagia, 32*(3), 345-361.

Karagiannis, M. J., Chivers, L., & Karagiannis, T. C. (2011). Effects of oral intake of water in patients with oropharyngeal dysphagia. *BMC Geriatrics, 11*(1), 9.

Karagiannis, M., & Karagiannis, T. C. (2014). Oropharyngeal dysphagia, free water protocol and quality of life: An update from a prospective clinical trial update from a prospective clinical trial. *Hellenic Journal of Nuclear Medicine, 17*(1), 26 29.

Kenedi, H., Foreman, M., Graybeal, D., Reynolds, J., Campbell, J., Santos, T. O., Gibson, M., & Burgardt, M. (2013). Positive and negative clinical indicators of the free water protocol in an acute care setting: Two pilot studies.

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