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United States IDDSI Reference Group Newsletter for January 2022

Wishing you all a happy, healthy start to the New Year!

Research Update: A Review of the IDDSI Framework & Medication Delivery

Article review provided by Danielle N. Demerdash MS, CCC-SLP, Member of the USIRG Research/Data Collection Workgroup summarizing:

Malouh MA, Cichero JAY, Manrique YJ, Crino L, Lau ETL, Nissen LM, Steadman KJ. **Are Medication Swallowing Lubricants Suitable for Use in Dysphagia? Consistency, Viscosity, Texture, and Application of the International Dysphagia Diet Standardization Initiative (IDDSI) Framework.** *Pharmaceutics*. 2020 Sep 28;12(10):924. doi: 10.3390/pharmaceutics12100924. PMID: 32998301; PMCID: PMC7601516.

Medication delivery for individuals with dysphagia (difficulty swallowing) may result in negative health consequences if unable to be safely swallowed and/or the efficacy of the medication is compromised via delivery mode. Commercially available products specifically advertised for individuals with dysphagia aim to increase ease of oral medication administration. Despite being advertised towards individuals with dysphagia it is unknown if these products are suitable for use by all individuals with dysphagia, especially for those requiring food or drink modification to minimize aspiration risk.

This research considers the limitations of commercially available swallowing aids for individuals with dysphagia and the need for implementation of International Dysphagia Diet Standardization Initiative (IDDSI) testing methods to ensure safety and efficacy of medication delivery.



The aim of the study was a description and comparison of commercially available medication lubricants in terms of texture suitability using the IDDSI framework for individuals with dysphagia. Medication lubricants where a tablet or capsule is placed in a spoonful of

lubricant have been advertised to assist with swallowing medications; however, it is questionable what bolus properties were considered and how these properties may impact swallowing safety for specific individuals. This study considers how extremely thick and sticky boluses may adhere to the mouth or pharynx increasing risk for patients with dysphagia. Another consideration not directly studied was how mixing tablets/capsules or crushing/splitting may additionally affect properties and IDDSI classification. Twelve commercially available medication lubricants were IDDSI level classified at room (24C/75.2F) and fridge (4C/39.2F) temperature with a flow test, fork drip and spoon tilt tests. Fluids found not valid using IDDSI flow test (mixed consistency and/or contained lumps) or failed fork drip and spoon tilt tests were classified as IDDSI Regular, Level 7 per IDDSI framework definitions. The medication lubricants were also classified for: pH, density, rheological properties (viscosity, yield stress), Bostwick thickness consistency, and texture properties.

This study found the medication lubricants tested varied in their IDDSI liquid level classification (ranging from Extremely Thick, Level 4 to Mildly Thick, Level 2). Specifically, three of the medication lubricants tested available as swallowing aids (Swallow Aid, Magic Jelly and Heyaxon) were a lumpy mixed texture or did not yield or flow in the tests applied and thus were classified as IDDSI Level 7. Therefore, these specific medication lubricants present concerns for risk of choking or aspiration in individuals with dysphagia.

Medication delivery for individuals with dysphagia requires special consideration to ensure safety and effectiveness of the medication. This study highlights how commercially available products specifically targeting increased ease of swallowing medications may be appropriate for individuals with an aversion to swallowing tablets or capsules or find it difficult with water, although these products are not always safe for patients with dysphagia requiring specific food or drink modifications due to risk for aspiration. Therefore, utilizing IDDSI testing methods to ensure desired level of consistency and texture in medication delivery is imperative to patient safety in individuals experiencing dysphagia.

Sharing IDDSI news only. IDDSI DOES NOT endorse or promote any specific products or services. IDDSI's primary goal is to foster the use of the IDDSI framework, standardised terminology and testing methods to improve safety, for all ages, all care settings and all cultures.