



Greetings from the Communication & Advocacy Committee! Welcome to our current E-BITE. Please enjoy and continue to share your news with us at usa.communications@iddsi.net

USIRG Newsletter for November 2022

Research Highlight by Sarai Logan and Dr. Andrea Charvet on:

Stevens M, O'Rourke S, Casto SC, Benedict J, Lundine JP. Clinical Focus: Findings and Clinical Implications for Thickening Formula With Infant Cereal Using the International Dysphagia Diet Standardisation Initiative Flow Test. *Am J Speech Lang Pathol.* 2022 Jul 12;31(4):1601-1610. doi: 10.1044/2022_AJSLP-21-00298.

November is a month that encompasses prematurity awareness. This month's research highlight focuses on an article that investigates the consistency, variability, and repeatability of thickening infant formula when using the International Dysphagia Diet Standardization Initiative testing methods.

Dysphagia is a complex condition in which swallowing mechanisms of the digestive system's oral, pharyngeal, and/or esophageal stages are impaired. This condition can manifest through structural or functional deficits, resulting in decreased macronutrient and micronutrient intake, leading to malnutrition. Dysphagia can become a major concern in premature infants as it can result in low-calorie intake, impaired feeding safety, and inadequate hydration. This can affect normal growth, leading to a negative impact in health and development during a period of rapid growth. Modifications to a premature infant's diet can ensure safe feeding to obtain the necessary nutrients and calories. A commonly used method is to thicken infant formula. However, there is poor consistency in thickening practices and practical guidelines have not yet been determined.

This month's article highlight is a clinically focused study aiming to aid in standardization of thickening infant formulas in a clinical setting by determining a simple standardized recipe. Intra- and inter-clinician variability of flow testing was assessed immediately after preparation for three infant formulas (Gerber Good Start Gentle, Similac Alimentum, Enfamil NeuroPro Infant) thickened using an infant rice or oatmeal cereal to IDDSI levels 1 (slightly thick), 2 (mildly thick), and 3 (moderately thick). The flow test was completed again for the same formula mixtures at 15 and 30 minutes.

This study was not able to determine a simple standardized recipe for thickening infant formula. The authors found that, although there was minimal variability intra- and inter-clinician, each formula required a different amount of infant cereal to be added to reach the desired IDDSI level. Even slight alterations in the recipe respectively altered the thickness. The authors also found that, despite the variation found in thickness when following a standard recipe, the IDDSI level achieved is likely to remain consistent throughout a 30-minute feeding. These findings are supported by prior literature that indicates that calories, density of the formula, type of infant cereal, variations in size of the cereal grain within brands, and procedure can impact the formula's thickness.

Following a standardized recipe of infant cereal and formula may not produce the same results every time a specific IDDSI level needs to be achieved and may pose a safety risk. This stresses the importance of implementing the IDDSI flow test to confirm the appropriate thickness of infant formula before every feeding. Utilizing the IDDSI framework to designate food and liquid thickness will help to meet the nutritional needs of rapidly growing infants while concurrently ensuring safety. Nevertheless, there is still a need for future research to examine the clinical outcomes of the variations in overall formula thickness and how the IDDSI flow test can best be used as a tool across settings and patient populations for pediatric dysphagia management.