

Dysphagia

Fluid testing methods recommended by IDDSI

--Manuscript Draft--

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Abstract:	<p>Creech et al. have recently published an investigation seeking to find a tool to predict flow rate of pediatric formulas (and water) in a training cup with drinking nozzle. The approach was scientific and thorough, using bespoke apparatus to measure the flow of liquids through a variety of syringes.</p> <p>We felt it important to highlight that although there is frequent reference to the International Dysphagia Diet Standardisation Initiative, IDDSI, the materials and methods used in this paper are different to the standard IDDSI flow test. The IDDSI Flow test requires 10mL of test sample to be placed in a 10mL capacity syringe (measuring 61.5mm from the 0-10mL lines), and flow is allowed for 10 seconds. The remaining volume in mL is the measurement used to categorize liquid thickness. In contrast, Creech et al have applied additional tools (electronic balance) to measure the average rates of flow over a variable, un-reported, period of time (within 2 minutes) using variable syringe volumes. They have not included results of the published standard IDDSI Flow Test, namely the volume of liquid (in ml) remaining after 10 seconds' flow.</p> <p>We would like to remind readers that the original descriptions of IDDSI tests are available open access in this journal [Cichero et al., 2017], and the web site www.IDDSI.org has the most up-to-date links to videos and training materials. For the dysphagia research community to build capacity in this area of liquid thickness measurement, standardized methods should be preserved to allow for valid comparisons between studies.</p>
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TITLE: Fluid testing methods recommended by IDDSI

Running Title: IDDSI Methods

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2 rate of pediatric formulas (and water) in a training cup with drinking nozzle [Creech et al.,
3 2018]. The approach was scientific and thorough, using bespoke apparatus to measure the
4 flow of liquids through a variety of syringes.
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17 time (within 2 minutes) using variable syringe volumes.
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31 Although the authors state the IDDSI flow test was “performed according to standardized
32 protocol”, they have not included results of the published standard IDDSI Flow Test, namely
33 the volume of liquid (in ml) remaining after 10 seconds’ flow. Instead, they have applied
34 additional measurement tools (electronic balance) to analyze and report the entire outflow of
35 liquid. This alternative measurement was created in order to address the authors’ specific
36 research aim, but it is not required for classifying liquids in the global IDDSI
37 framework. Creech et al.’s methods are not IDDSI procedures.
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49 Of benefit, the Creech et al. study demonstrated using their syringe outflow method that it is
50 not possible to substitute the IDDSI-specified syringe for alternative syringe types, as the
51 outcomes will be different. The standardization of the IDDSI Flow Test comes from (a)
52 standardized volume, (b) standardized flow time, (c) standardized syringe dimensions to
53 give categorization of liquid thickness that is internationally comparable. For the dysphagia
54 research community to build capacity in this area of liquid thickness measurement,
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We would like to remind readers that the original descriptions of IDDSI tests are available open access in this journal [Cichero et al., 2017], and the web site www.IDDSI.org has the most up-to-date links to videos and training materials. For example, since its original publication, additional clarification has been added to highlight that a fork test is required to classify Level 4 when the material is too thick to be used in a Flow Test.

Please note that the IDDSI Framework is licensed under the Creative Commons license as follows:

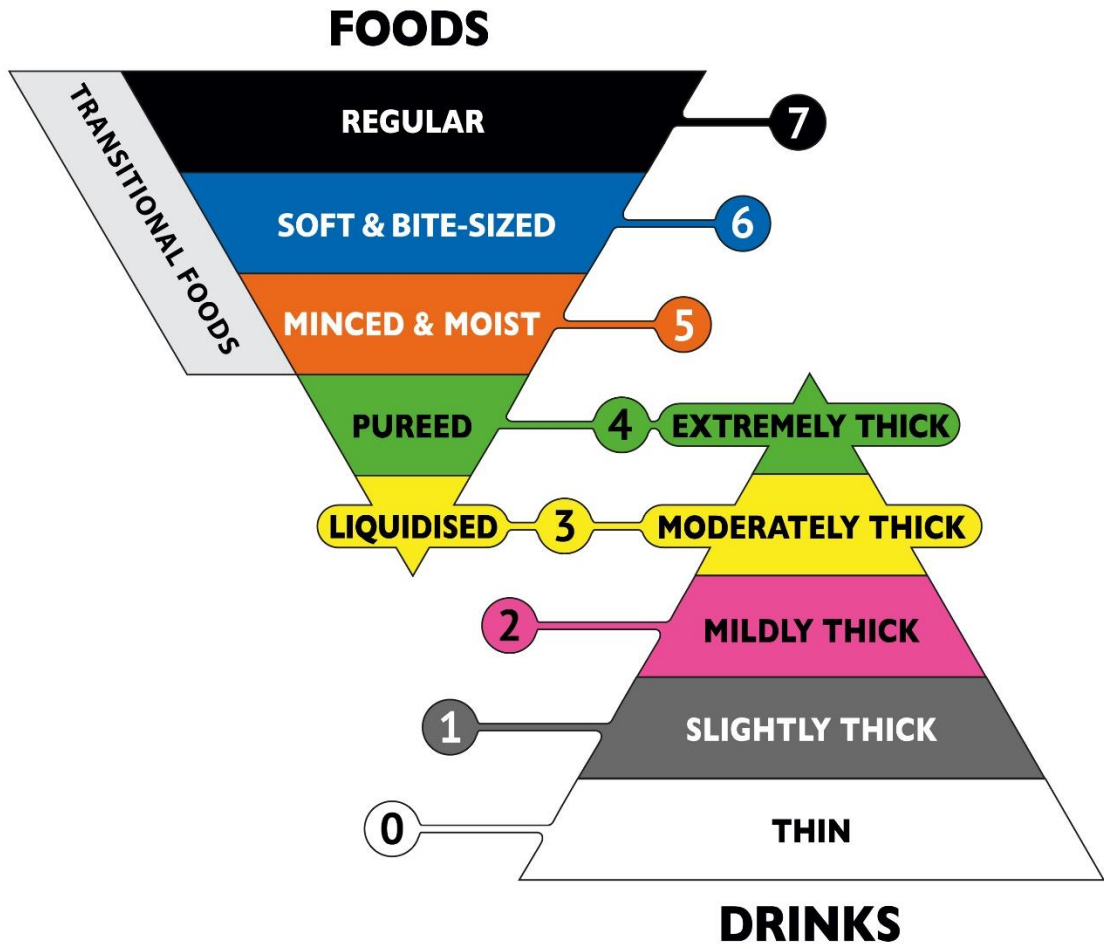
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Supplementary Notice: Modification of the diagrams or descriptors within the IDDSI Framework is DISCOURAGED and NOT RECOMMENDED. Alterations to elements of the IDDSI framework may lead to confusion and errors in diet texture or drink selection for patients with dysphagia. Such errors have previously been associated with adverse events including choking and death.

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Creech, T.N., Bailey-Van Kuren, M., Sparks, J. et al. Dysphagia (2018).

<https://doi.org/10.1007/s00455-018-9931-6>

Cichero, J.A.Y., Lam, P., Steele, C.M. et al. Dysphagia (2017) 32: 293.

<https://doi.org/10.1007/s00455-016-9758-y>

