

**NMI** Nestlé Nutrition Institute

# Do You IDDSI Too?

## Let's Talk Implementation

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Presented on March 13, 2019

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**Disclosure:**

International Dysphagia Diet Standardization Initiative (IDDSI) Board Member

The IDDSI Board is a team of volunteers, consisting of dietitians, speech pathologists, food scientists, physicians, occupational therapists, engineers, nurses, and professionals who have come together to help create the IDDSI framework.

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International Dysphagia Diet Standardisation Initiative

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**IDDSI**  
International Dysphagia Diet Standardisation Initiative

**Safety through...**

- Common terminology for
- All ages
- All care settings
- All cultures

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## Why do we need a standardized system?

**Safety**

Multiple labels & definitions cause confusion within & between health care facilities

**Efficiency**

Avoids need for re-assessment of food & liquids when patients move between healthcare settings

**Commercial Consistency**

Ready to use items & products are consistent from manufacturer to manufacturer

**Research**

Provides ability to compare research across healthcare & research facilities throughout the world to create clinical evidence

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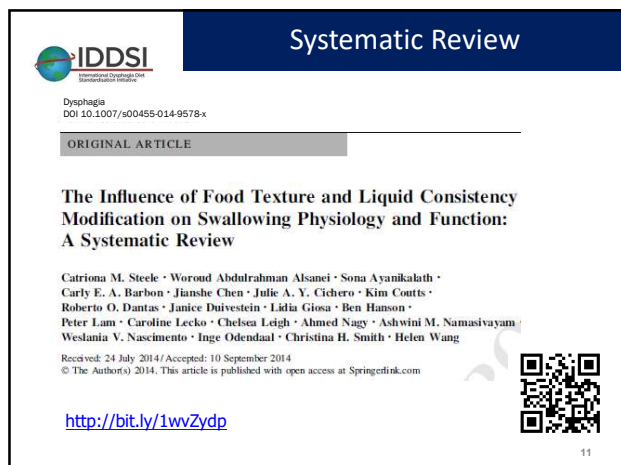
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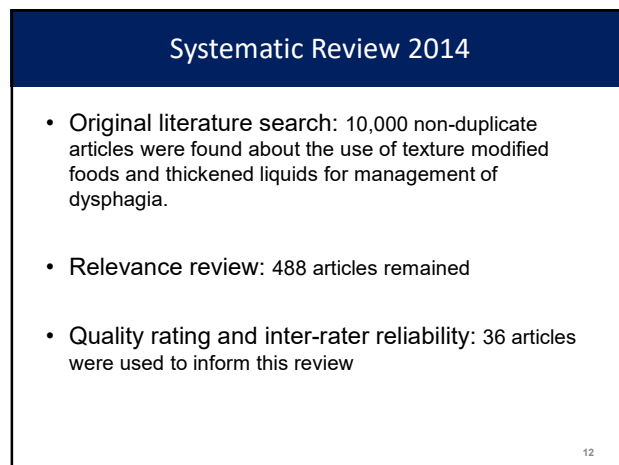
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### Evidence - Therapeutic effect of thickened liquids: Systematic reviews

Newman, 2016, Dysphagia, 31: 232-49; Steele et al., 2014, Dysphagia, 30: 2-26

1. Thickened liquids help those who aspirate thin liquids
2. Liquids can be “too thick”, where residue begins to accumulate
  - Suggests an *upper* ‘therapeutic thickness’ boundary exists




Ongoing research required to determine therapeutic thickness level/s

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### Evidence - Therapeutic effect of texture modified food: Systematic review

Steele et al., 2014, Dysphagia, 30:2-26

1. Solid food and thick/paste consistencies = greater effort in oral processing and swallowing
2. Very little literature on texture modified food used for dysphagia management



ETHICS  
RCT studies unsafe if a potential outcome is death by choking

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### Putting it all together...




Developing a **culturally-sensitive, age-span** relevant framework for classifying texture modified foods and thickened drinks

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### IDDSI Board of Directors




 Ben Hanson UK	 Jun Kayashita Japan	 Caroline Lecko UK	 Luis F. Riquelme US & territories	 Mershen Pillay S. Africa
 Jan Duivestijn Canada	 Roberto Dantas Brazil	 Jianshe Chen China	 Peter Lam Canada	 Julie Cichero Australia
			 Catriona Steele Canada	 Jan Vanderwegen Belgium

International Co-Chairs

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### Monitor-Aware-Prepare-Adopt




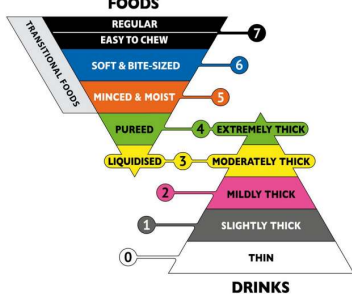
- Aware**
  - Build awareness across facilities/sectors to all impacted clinicians, professional associations and their boards, industry, administrators, government, supply chain and support staff
  - Communicate who, what, where, when, why & how impacted
- Prepare**
  - Assess processes and protocols that may need to change
  - Approve product changes, prepare materials /inventory/computer management
  - Train clinicians, stakeholders and all staff involved
- Adopt**
  - Introduce new IDDSI system to commercially ready to use, pre-packaged goods and at facility level and in food service chain
  - Transition and integration

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### IDDSI Framework

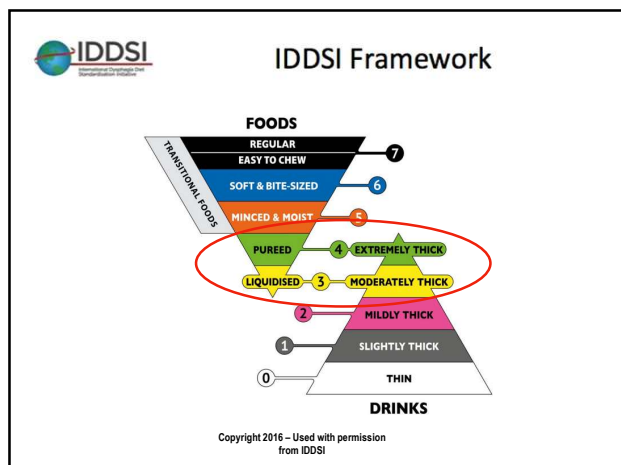
Cichero et al. (2017) Dysphagia, 32: 293-314

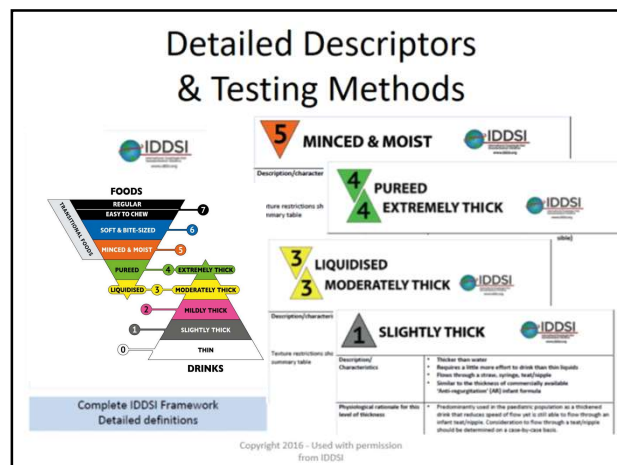
Foods and liquids on a single continuum  
Relevant across the age span  
For all cultures and all care settings

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1 SLIGHTLY THICK	
Description/Characteristics	<ul style="list-style-type: none"> <li>Thicker than water</li> <li>Requires a little more effort to drink than thin liquids</li> <li>Flows through a straw, syringe, teat/nipple</li> <li>Similar to the thickness of commercially available 'Anti-regurgitation' (AR) infant formula</li> </ul>
Physiological rationale for this level of thickness	<ul style="list-style-type: none"> <li>Predominantly used in the paediatric population as a thickened drink that reduces speed of flow yet is still able to flow through an infant teat/nipple. Consideration to flow through a teat/nipple should be determined on a case-by-case basis.</li> </ul>
Testing method	
See also IDDSI Testing Methods document or <a href="http://iddsi.org/framework/drink-testing-methods/">http://iddsi.org/framework/drink-testing-methods/</a>	
IDDSI Flow Test*	<ul style="list-style-type: none"> <li>Test liquid flows through a 10 mL slip tip syringe leaving 1-4 mL in the syringe after 10 seconds (see IDDSI Flow Test instructions*)</li> </ul>

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## The Measurement Dilemma: LIQUIDS

- Measuring viscosity is TOO complicated to use in kitchens as the basis for classifying thickness
- Need a simpler, but valid and reliable method for measuring thickness at the point-of-use

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## IDDSI Flow Test

van Vliet et al. (2002), Food Quality and Preference, 13, 227-236; Kutter et al. (2011), 42: 217-227

Similar to Posthumus Funnel used in dairy industry to measure liquid thickness

**Flow Test**

IDDSI level depends on liquid remaining after 10 seconds flow.

Level 4: Use IDDSI fork-drip / spoon-drip tests

Check your syringe: 0-10 mL scale = 60 mm

**"Geometry allows for both shear and elongation that more closely matches flow conditions within the oral cavity"**

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## IDDSI Flow Test

**IDDSI Level classifications based on liquid remaining after 10 seconds:**

- Level 0: All liquid has flowed through syringe.
- Level 1: There is between 1 and 4mL remaining.
- Level 2: There is between 4 and 8mL remaining.
- Level 3: There is more than 8mL remaining, but some liquid still flows through.
- Level 4: If no liquid flows at all, the category is Level 4 or above.
- Level 4 can also be easily identified without a syringe test: Material holds its own shape; small peaks remain on the surface. Too thick to be drunk from a cup or a straw, should be taken with a spoon. A full spoonful must drop off a spoon if turned sideways; a very gentle flick may be necessary but the material should not be firm, nor sticky.

Example videos of the IDDSI flow test can be found on YouTube and accessed through the resources page on the IDDSI website:

[www.iddsi.org](http://www.iddsi.org)

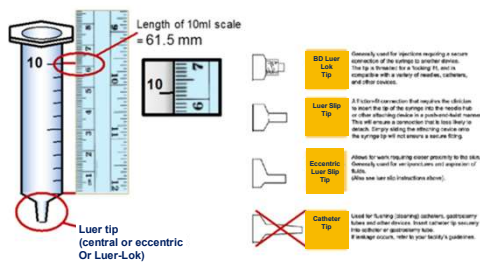
© Ben Hansen 3/13/2015

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## IDDSI 10 mL Syringe Specifications



Before use, check the nozzle to make sure it is clear and free from any plastic residue or manufacturing defects that occasionally occur.

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## 5 MINCED & MOIST



Description/characteristics	<ul style="list-style-type: none"> <li>Can be eaten with a fork or spoon</li> <li>Could be eaten with chopsticks in some cases, if the individual has very good hand control</li> <li>Can be scooped and shaped (e.g. into a ball shape) on a plate</li> <li>Soft and moist with no separate thin liquid</li> <li>Small lumps visible within the food                             <ul style="list-style-type: none"> <li>➤ Paediatric, 2 mm lump size</li> <li>➤ Adult, 4mm lump size</li> </ul> </li> <li>Lumps are easy to squash with tongue</li> </ul>
Texture restrictions shown in summary table	
Physiological rationale for this level of thickness	<ul style="list-style-type: none"> <li>Biting is not required</li> <li>Minimal chewing is required</li> <li>Tongue force alone can be used to break soft small particles in this texture</li> <li>Tongue force is required to move the bolus</li> <li>Pain or fatigue on chewing</li> <li>Missing teeth, poorly fitting dentures</li> </ul>

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## The Measurement Dilemma: FOODS

### Particle Size:

- For *hard and soft solid* foods, a maximum food sample size of ~1.5 x 1.5 cm is recommended, which is the approximate size of the adult human thumb nail (Murdan, 2011).
- For *minced and moist* foods, a maximum particle size of **4 mm** for adults and children 5 years and older is recommended.
- For under 5 years, **2 mm** max particle size is recommended.

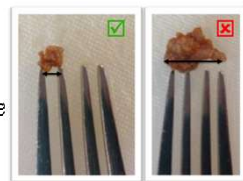
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## The Measurement of FOODS

### IDDSI Fork Test:

- The slots/gaps between the tines/prongs of a standard metal fork typically measure **4 mm**.
- This provides a useful compliance measure for particle size of foods at Level 5 - Minced & Moist.



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## The Measurement of FOODS

### IDDSI Fork Pressure Test:

- A fork can be applied to the food sample to observe its behavior when pressure is applied.
- Pressure applied to the food sample has been quantified by assessment of the pressure needed to make the thumb nail blanch noticeably to white.



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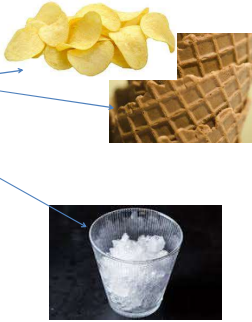
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## What are Transitional Foods?

- Foods that start as one texture and change into another with moisture or temperature
- Minimal chewing required
- Tongue pressure may be sufficient to break food down after alteration in moisture or temperature



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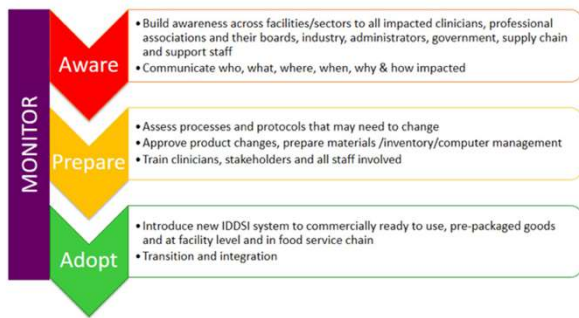
## IDDSI Food Texture Test Videos

<http://iddsi.org/framework/food-testing-methods/>

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## Monitor-Aware-Prepare-Adopt



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## Visit the website



International Dysphagia Diet Standardisation Initiative

A global initiative to improve the lives of over 500 million people worldwide living with dysphagia

[Home](#) [IDDSI Framework](#) [Implementation](#) [Translations](#) [Resources](#) [FAQ](#) [Contact Us](#) [About Us](#)

Helping People with Dysphagia Around the World



Learn about the process of implementation

Click below to see news about IDDSI, important updates about the IDDSI Framework, and additions to our website.

[What's New?](#) [Important Updates](#)



Implementation in an Academic Hospital setting - University of Michigan

March 11 - 5 pm (EST/GMT-5:00) Register

March 12 - 12pm (EST/GMT-5:00) Register



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## e-bite

February 2019

### IN THIS BITE

- Successful and exciting events across the globe
- Reminder Notice: Use of IDDSI Logo and IDDSI Framework
- New IDDSI Resources for 2019
- Updating our Website
- Webinar Series 2019 - University of Michigan
- IDDSI Translations
- IDDSI on the Move

### EXCITING EVENTS ACROSS THE GLOBE

#### London, United Kingdom:

The UK IDDSI Festival and Congress in London on February 16, 2019 was a great success. The event was interactive to promote discussion and learning between professional bodies (RCSLT, BDA and NHS-U), 6 commercial exhibitors, and over 200 participants. On-stage presentations featured implementation stories, live cooking & testing demonstrations, and there were plenty of samples of excellent texture modified foods & drinks to try. The event was supported by UCL's Institute of Healthcare Engineering. The UK are fully adopting IDDSI from April 2019, with many settings already implementing IDDSI.

Ben Hanson's presentation from this event is available on youtube through [this link](#).

Titled *How Thick? Being specific with measurements*, it covers the rationale for testing, reviews different methods and describes the IDDSI measurements including the flow test, fork pressure test and spoon tilt test.

The presentation concludes with recommendations on how to get the most from measurement in practice: use IDDSI as a tool for communication of clinical decisions, it is **not** an instruction manual or rule book.

Sign up to receive updates via IDDSI e-bites

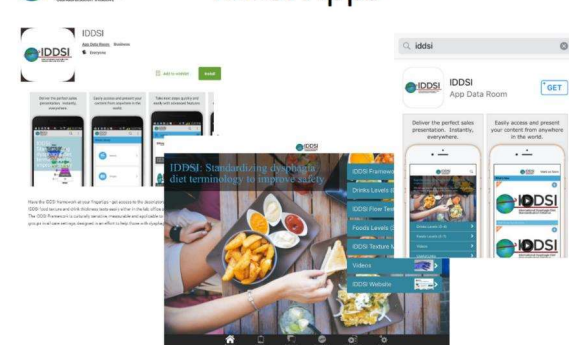
Share your stories!

Write to us at: [communications@iddsi.org](mailto:communications@iddsi.org)

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## IDDSI Apps



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# IDDSI

## International Dysphagia Diet Standardisation Initiative

A global initiative to improve the lives of over 590 million people worldwide living with dysphagia



Let's Talk...

# Implementation



# IDDSI

## International Dysphagia Diet Standardisation Initiative

A global initiative to improve the lives of over 590 million people worldwide living with dysphagia

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### Resources

**Do I need special permission to use these resources?** The following documents have been developed by IDDSI and are for public use. You do not need to seek permission from IDDSI to share these documents and images **as long as you cite the [Creative Commons BY-SA 4.0 license](#)** as follows:

The International Dysphagia Diet Standardisation Initiative 2016 @<https://iddsi.org/framework/>

Attribution is NOT PERMITTED for derivative works incorporating any alterations to the IDDSI Framework that extend beyond language translation. Supplementary Note: 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.

[General Resources](#)
[Country-specific Resources](#)

IDDSI 101 (Print and Post)

IMPLEMENTATION

[www.iddsi.org/resources/](http://www.iddsi.org/resources/)

Note: Not following these instructions might lead to misprints. If you are still unable to print the documents successfully, please talk to an IT professional.

General Resources

Country-specific Resources

IDDSI 'Print and Display' (posters)	+
Consumer Handouts (Paediatric)	+
Consumer Handouts (Adults)	+
Implementation	+
Presentations	+
Publications	+
E-bites (monthly newsletters)	+
Newsroom	+
Videos	+
Webinar Recordings	+
Resources from other IDDSI users	+

www.iddsi.org/resources/	
Implementation	—
Adoption Posters	—
Conversion Charts	—
Audit Sheets	—
Labels of IDDSI Levels	—
MAPA Logos (by Country)	—
Foodservice	—
Implementation Guides	—
Flow Test Cards	—
Food Test Cards	—
Testing Reference Cards	—

www.iddsi.org/resources/	
Implementation	—
Adoption Posters	—
Conversion Charts	—
Audit Sheets	—
Labels of IDDS Levels	—
MAPA Logos (by Country)	—
Foodservice	—
Implementation Guides	—
<ul style="list-style-type: none"> <li>• Clinicians and Health Care Providers</li> <li>• Food Service and Catering</li> <li>• Industry</li> <li>• Master guide/ Cross-Sector</li> </ul>	
Flow Test Cards	—
Food Test Cards	—
Testing Reference Cards	—

# IDDSI-Aware

- Who to team-up with? Who leads team?
  - Manager of RDs + Head of SLPs?
  - Manager of RDs + Food Service Manager?
  - Others?
- Who “approves” the move to assess the potential for change?
  - Vice President?
  - Director?
  - Other?
- Who are the next level of target supporters?
  - Entire SLP and RD team + Food Service
  - Others?

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## IDDSI-Aware

- How to conduct training for mapping teams(s)?
- How to map current menus to the IDDSI Framework?
  - One group volunteers to map entire menu?
  - Create teams and divide menus?
  - Create teams and only map parts of menus?
  - Others?
- How to coordinate the testing? Ensure interrater reliability?

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## Potential Transition/Implementation Steps

- Map thickened liquids (names and definitions) to the IDDSI standards
- Involve all front line staff and evaluate existing recipes, menus and diet breakouts: FS, RD, SLP?
- Take one food group at a time; or meal at a time; and **gradually** map to IDDSI standards
  - Provides built-in awareness & training
  - Allows adjustment of procedures and sustainable changes

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## Examples of IDDSI Diet Orders

6 SOFT & BITE-SIZED + 0 THIN

4 PUREED + 2 MILDLY THICK

5 MINCED & MOIST + 3 MODERATELY THICK

4 PUREED + 4 EXTREMELY THICK

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Dinner  
WED 01/04/17

### Hot Food

3 ounce Chopped Roast Beef 5  
1/2 cup Diced Carrots 6  
1/2 cup Mashed Potatoes 4  
1/4 cup Beef Gravy 4  
6 ounce Blended Veg Soup LS 3

### Trayline

1 each LS Veg Juice (V8) 1  
1/3 cup Cottage Cheese 5  
1 each FF Chocolate Pudding 4  
6 ounce Nectr Thk Decaf Coff 3  
2 pkt Smart Balance 4

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Dinner  
WED 01/04/17

6 SOFT & BITE-SIZED 1 SLIGHTLY THICK



### Hot Food

3 ounce Chopped Roast Beef 5  
1/2 cup Diced Carrots 6  
1/2 cup Mashed Potatoes 4  
1/4 cup Beef Gravy 4  
6 ounce Blended Veg Soup LS 3

### Trayline

1 each LS Veg Juice (V8) 1  
1/3 cup Cottage Cheese 5  
1 each FF Chocolate Pudding 4  
6 ounce Nectr Thk Decaf Coff 3  
2 pkt Smart Balance 4

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## IDDSI Prepare



Develop a plan to introduce IDDSI

Communicate plan & consult all stakeholders

Review  
Revise  
Monitor

Determine launch date and prepare all stakeholders

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## IDDSI Implementation Plans

Once mapping is complete, PLAN should include:

- Can kitchen handle transition? Tray assembly?
- Food Service computer system?
- Electronic medical records – diet orders?
- When are other stakeholders brought in? Medicine. Nursing.
- Roll-out on one unit or entire facility?
- Roll-out entire menu or parts of it?

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### IDDSI Print & Post Posters

**How Thick is Thick? New flow test introduced?**

**IDDSI Testing methods will help to ensure correct textures and thicknesses.**

**What is IDDSI?**

The International Dysphagia Diet Standardisation Initiative (IDDSI) is a global standard with terminology and definitions to describe texture-modified foods and beverages used for individuals with dysphagia of all ages, in all care settings, and for all cultures.

The IDDSI Framework consists of a continuum of 8 levels (0-7). Levels are identified by test labels, numbers, and color codes to improve safety and identification. The standardised descriptors and testing methods will allow for consistent production and easy testing of thickened liquids and texture-modified foods.

### Flow Test

The International Dysphagia Diet Standardisation Initiative (IDDSI) framework of terminology and definitions includes an objective measurement for liquid thickness.

**Level 4: Use IDDSI fork-drip or spoon-fill tests instead.**

The IDDSI flow test classifies IDDSI Levels 0-3 based on their rate of flow.

**VIDEOS OF IDDSI FLOW TEST CAN BE FOUND HERE:**  
<https://idssi.org/framework/drink-testing-methods/>  
 or in the IDDSI App

**IDDSI FLOW TEST INSTRUCTIONS**

1. Remove plunger
2. Cover nozzle with finger and fill 10ml
3. Release nozzle & start timer
4. Stop at 10 seconds

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## NewYork-Presbyterian Brooklyn Methodist Hospital

- Initial training session: all SLPs, all RDs, Food Service supervisors
- Mapping
  - 6 groups: SLP + RD
  - Created Worksheets
- Kitchen tools
- Menu issues
- Next steps...

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### Spreading the news: Newsletter?

#### Implementation Project Update May 2017

Luis F. Riquelme, Ph.D., CCC-SLP, BCS-S  
 Director, Center for Swallowing & Speech-Language Pathology  
 Karen L. Kupinski, MPH, RD  
 Director, Clinical Nutrition and Patient Services

**Greetings!**

In efforts to maintain all stakeholders aware of the progress being made as our facility moves forward with the implementation of the IDDSI Framework, we offer this newsletter as a vehicle of communication. Serving as the pilot site for the NewYork-Presbyterian network is an honor, and we hope to serve as a model as we move forward, learn from our mistakes and develop a process to better serve our patients and ensure their safety.

*Karen and Luis*

**MARCH 2017**

We held an information meeting (in-service style) with all speech-language pathologists (SLP) and dietitians (RD) at our facility. Several leaders from the Food Service area also joined our group. Dr. Riquelme introduced everyone to IDDSI via a power point presentation that included the history and rationale for moving forward with this initiative. NYU students Alexandra Aldeborgh and Austin D. Fernández presented their experience in mapping several food items from our current menus at NYPBMH. A lively discussion ensued and several clinicians engaged in the demonstrated syringe flow testing.

**APRIL/MAY 2017**

Volunteers from among the RDs and SLPs have been gathered and Mapping Teams created. Each Mapping Team is composed of an RD, SLP, Luis, Karen and the NYU students are dividing the current NYPBMH menus into workable spreadsheets to facilitate the IDDSI

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Visit MyCE at  
[MyCEeducation.com](http://MyCEeducation.com)  
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