Presentation Objectives

During this session participants will:

- Develop an understanding of the IDDSI framework
- Learn about various dysphagia diets and their relationship to resident safety
- Understand the various testing methods to assure compliance with the IDDSI framework

Why IDDSI?
Why do we need a standardised system?

**Safety**
- Multiple labels and definitions cause confusion
- Within and between institutions
  - Individuals with swallowing difficulties
  - Family/Care providers
  - Health care professionals
  - Food services

**Clinical efficiency**
- Avoids re-assessment to determine safe liquid and diet levels
- Reduces need to confirm and clarify clinical information.
Why do we need a standardised system?

Commercial implications

- So that ‘ready to use/off-the-shelf’ items are consistent from manufacturer/supplier to manufacturer/supplier and, similar to those produced in hospitals/care facilities/at home

Dysphagia

- Abnormal swallowing due to disturbance in the transfer of food or liquid from the mouth to the stomach
- Disturbances may involve the oral (mouth), pharyngeal (throat) or esophageal (esophagus) phases of the swallowing sequence
- Dysphagia is a symptom of underlying disease, most often neurological or mechanical/obstructive
Symptoms of dysphagia
- Difficulty chewing
- Food or liquid leaking out of the mouth
- Fatigue while eating
- Weight loss
- Food and/or liquids sticking in throat or chest
- Regurgitation after meals
- Symptoms of penetration/aspiration

Symptoms of penetration/aspiration
• Wet, gurgly vocal quality prior to swallowing &/or after swallowing
• Choking/airway obstruction
• Coughing
• Subtle throat clearing
• Laryngeal penetration: material enters voice box, stays above vocal cords and either clears or remains in the voice box
• Aspiration: material falls below the vocal cords into the trachea/windpipe

Video swallow study with aspiration
Fiberoptic endoscopic swallow study

Implementation of IDDSI at the University of Michigan

Michigan Medicine

- Ann Arbor, Michigan
- 1000 Licensed beds (medical and surgical)
- University of Michigan teaching hospital
- 28,000 Employees
- 3,000+ Faculty
- 5,000+ Nurses
- 1,200 Residents in Training
- 26 Accredited Residency Programs
IDDSI Task Force Creation

• Primary Members
  – Patient Food and Nutrition Services
    • Director, Associate Director, Managers
  – Speech-Language Pathology
    • Adult and pediatric SLP's
  – Pharmacy
  – Several other participants received meeting minutes

Task Force

• Develop timeline
  – Monthly meetings
  – Consulted with MiChart (our e-chart) to determine dates
    for scheduled “downtime” and timeline for ticket
    submissions (early)
  – Set goal date for implementation for November 2018
Menu Development

- Determine names for IDDSI diet levels on our new menus
- Review of prior Texture Modified menu
  - NDD dysphagia levels 1-3
- Existing menu items were IDDSI tested by Patient Food and Nutrition Compliance Team
  - All items assigned appropriate IDDSI level

IDDSI Dysphagia Diet Names

<table>
<thead>
<tr>
<th>IDDSI Level</th>
<th>Diet Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Puree</td>
<td>Regular texture, easy to cut and chew.</td>
</tr>
<tr>
<td>2</td>
<td>Puree</td>
<td>Regular texture, easy to cut and chew.</td>
</tr>
<tr>
<td>3</td>
<td>Puree</td>
<td>Regular texture, easy to cut and chew.</td>
</tr>
<tr>
<td>4</td>
<td>Liquid</td>
<td>Thick liquid, pourable, easy to swallow.</td>
</tr>
<tr>
<td>5</td>
<td>Liquid</td>
<td>Thick liquid, pourable, easy to swallow.</td>
</tr>
<tr>
<td>6</td>
<td>Liquid</td>
<td>Thick liquid, pourable, easy to swallow.</td>
</tr>
</tbody>
</table>

Menu Development

- RDN's and SLP's met to discuss gaps in menus
- Reviewed updated Academy of Nutrition and Dietetics handouts
- SLP's advocated for separate menus for each IDDSI level (4, 5, and 6)
  - Improved clarity for staff, patients, and families
Resources Utilized

- IDDSI site - [https://iddsi.org/](https://iddsi.org/)
- Nutrition Care Manual - [www.eatright.org](http://www.eatright.org)
- Patient Food and Nutrition Services – Food Service Systems Enhancement Committee (FSSEC)

Menu Development – Particle Size

- Michigan Medicine is huge institution
- Adult and Children’s Hospital share some food items from main kitchen
- Some adult oncology patients housed in Children’s Hospital
- Level 5 – utilize 4 mm x 4 mm (adults & peds)
- Level 6 – utilize 8 mm x 8 mm (adults & peds)
### Menu Development

- Gaps in menu
- Level 5 minced and moist had most gaps
- No commercially prepared foods yet
- Chef menu creation
  - Modified popular items from prior texture modified menu

### Menu Development - Initial Process

- Flavor, palatability, nutrition
- Seasonality, availability of product
- Demographics of patients – age, culture, religion
- Avoiding common allergens
- Cost - purchase, labor
- Ability of staff
- Consistency of food served hot and room temperature
- Available equipment
- Storage – available space and use by date
- Estimate of patients served

### Meat Loaf

![Image of Meat Loaf](image-url)
Chef Tony

Compliance Testing

- Adult and Pediatric Compliance RDN
- New IDDSI menu items were taste tested and evaluated for particle size, cohesiveness
- Fork test, syringe test, spoon tilt test
- Any manipulation needed?
- Food Service Systems Enhancement Committee

Prep
Preliminary IDDSI Menu

- Met as group to review prototype menus
- SLPs indicated need for more breakfast items for patient satisfaction
- Level 6 Soft and Bite-Sized included all items from Level 4 and 5 menus for variety
- Level 5 Minced and Moist has the most gaps
  – Looking for more commercially prepared items in the future

Chicken Noodle  Red Lentil Stew
Red Lentil Stew

Storage and dating of menu items

Equipment, Storage, and Dating of Menu Items

- Robo coupe
- Buffalo chopper for less exact dimensions
- Blender, only to be used to puree ingredients, not to puree the whole menu item
- Meat grinder will work well to achieve an even texture
- Frozen in individual portions
Education of Production Staff

- Assign 1-2 staff per menu item to create consistency
- Work with staff for period of time
- Award staff for good work, stopping problems etc.

Education of Clinical and Food Service Staff

- Compliancy RDNs were educated then in-serviced the RDN staff
- Dietetic interns (8) were trained and then educated Food Service Staff
  - Provided food samples of different levels
  - Q&A Session
  - Staff had to guess particle sizes
  - Staff tested for food items improperly labeled per IDDSI standards

Education of Speech-Language Pathologists

- Speech-Language Pathology
  - 45 SLP’s across multiple inpatient and outpatient clinics across campus
  - Main Hospital and Children’s Hospital
  - Utilized IDDSI resources during in-person Dysphagia Rounds and via email
  - SLP’s watched IDDSI webinars
Education of Hospital Staff

- Roll out November 7, 2018
  - Task Force created email blast with information on transition (when and why)
  - Included IDDSI flyers comparing old to new
  - Attached old vs new meal tickets
  - Reviewed new diet names in MiChart
  - Too big an institution to in-service everyone

Education of Medical Staff

- Emails sent to:
  - RN Educators
    - RN hierarchy, top-down education
  - Mid-level Providers (NP’s, PA-C’s)
  - Physical Medicine & Rehab unit staff: Rehab MD, PT, OT, rehab RN’s
  - Unit Clerk’s (where menus are kept)
  - Email blast sent to MD’s via the Chief of Clinical Affairs
# Roll Out

- SLP’s began using both NDD and IDDSI terminology in notes for ~2 weeks before change
- SLP’s educated current inpatients on dysphagia diets about upcoming menu change
- SLP’s contacted RDN Clinical Managers the night before implementation with FINAL new IDDSI diet recommendations for manual entry
- RDNs changed diet orders for their patients

## Tray Ticket Sample DYS 5 New Food Items

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## Positive Feedback

- SLP’s are no longer crossing off unsafe items from prior texture modified diet (i.e., mixed consistency chicken noodle soup on Dysphagia Level 2)
- Each diet level has a separate menu
- Improved Patient safety
- IDDSI Handouts for patient education
- International translation
Negative Feedback

- Level 6 is still fairly “mushy” since we are utilizing pediatric particle sizes across sites
- Big leap from level 6 to Regular Consistency
- MD’s began placing orders for “slightly thick” liquids
- Menu still very limited for Level 5 Minced and Moist
- Patient’s transferring from OSH to Michigan Medicine are confused

Plan, Do, Check and Act – Continuous Quality Improvement

- Identified additional needs
  - Menu additions for Level 5 – looking for commercially prepared foods
  - Potential to implement Level 7 Easy to Chew menu

IDDSI level 7 Easy to Chew

- Level 6 at Michigan Medicine still contains very soft, mushy foods
- Other facilities may be able to employ the adult particle size of 1.5cmx1.5cm for level 6 if kitchen is not shared with children’s hospital
- Patients and families are unhappy with level 6 menu restrictions
- Huge leap from pediatric level 6 particle size of 8mm to regular consistency foods
- Currently SLP’s are modifying the regular menu – patient safety risk
Plan, Do, Check and Act – Continuous Quality Improvement

- Task Force met again in the spring of 2019 to develop Level 7 Easy to Chew menu
- Agreement amongst the task force needed Level 7
- Important to avoid using “Regular” when naming the diet
- Referred to a “Level 7 Easy to Chew”

IDDSI level 7 Easy to Chew

- Similar to NDD level 3 mechanical soft diet
- Regular – non-modified foods
- Particle size is not restricted
- Avoids hard, fibrous, stringy foods
- Should be able to bite off pieces of soft and tender food

IDDSI level 7 Easy to Chew

- Good choice for people who may tire easily chewing hard solids, or someone with limited or no dentition
- Not meant for people with increased risk of choking
- People unsafe to eat without supervision should not be advanced to this level
- Bread not included but we allow soft breads to be compliant here
  - any patients with dysphagia will be carefully selected before advancing to this level to ensure safety
Additional Resources

- Development of the PFANS website link specific to IDDSI

  http://www.med.umich.edu/pfans/

PFANS Room Service Menus

- University Hospital and Cardiovascular Center
- Children’s and Women’s Hospital

http://www.med.umich.edu/pfans/iddsi.html