

# Week 11: Geriatric Bootcamp

## Dysphagia and Malnutrition

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## The IPRO QIN-QIO

- A federally-funded Medicare Quality Innovation Network – Quality Improvement Organization (QIN-QIO)
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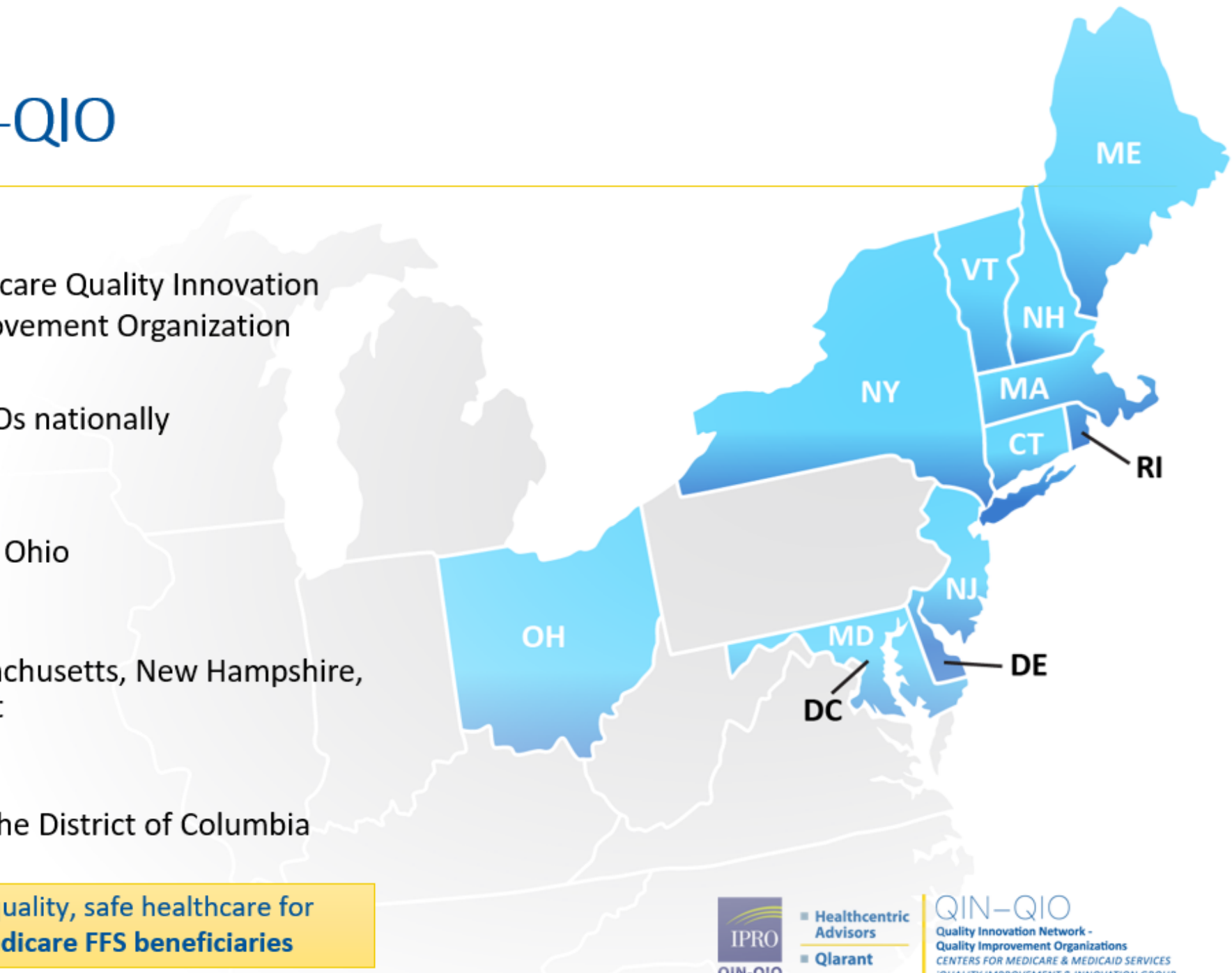
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Working to ensure high-quality, safe healthcare for  
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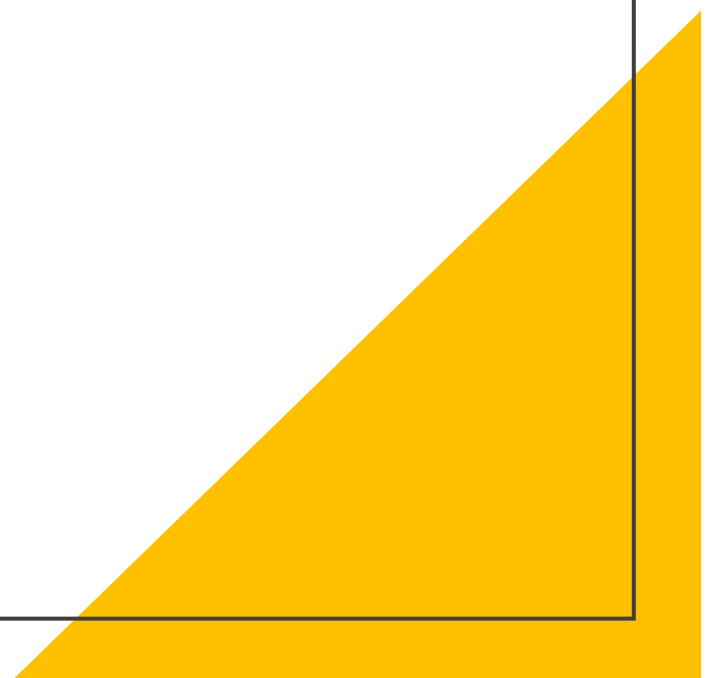


# Malnutrition and Dysphagia in Long-term Care

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Rhode Island Hospital



# Objectives

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1. Define malnutrition and dysphagia in LTC residents.
2. Describe a strategy for evaluation and prevention of malnutrition and dysphagia.
3. Describe the approach of comfort feeding with end-stage dementia.

# Definition of Malnutrition

## Academy of Nutrition and Dietetics:

Inadequate intake of protein and/or energy over prolonged periods of time resulting in loss of fat stores and/or muscle stores, including starvation-related malnutrition, chronic disease or condition-related malnutrition and acute disease or injury-related malnutrition.



As many as 50-60% of LTC residents are at risk for unintended weight loss and malnutrition.

# Malnutrition: Contributing Factors

## Factors associated with aging

- Impairments
- Psychosocial factors
- Physical changes of aging
- Chronic disease
- Polypharmacy

## Factors potentially associated with institutionalization

- Staffing challenges
- Limitations of food delivery systems
- Timing of menu selection vs service
- Challenges of bulk meal preparation, overly restrictive therapeutic diets, limited menus

# Consequences of Malnutrition

- Loss of strength and function/increased risk of falls
- Depression
- Lethargy
- Immune dysfunction/increased risk of infection
- Delayed recovery from illness
- Pressure injuries/poor wound healing
- Increased chance of hospital admission and readmission
- Increased treatment costs
- Increased mortality

# Evaluating Malnutrition

Most important criteria to identify and evaluate:

1. Insufficient energy intake
2. Weight loss/low body weight
3. Loss of muscle mass
4. Loss of subcutaneous fat
5. Localized or generalized fluid accumulation that may sometimes mask weight loss
6. Diminished functional status as measured by hand grip strength



# Evaluating Malnutrition: Screening & Assessment

## Screening Tool: MNA-SF (Mini Nutritional Assessment – Short Form)

### Mini Nutritional Assessment

MNA<sup>®</sup>

Nestlé  
Nutrition Institute

Last name:	<input type="text"/>	First name:	<input type="text"/>						
Sex:	<input type="text"/>	Age:	<input type="text"/>	Weight, kg:	<input type="text"/>	Height, cm:	<input type="text"/>	Date:	<input type="text"/>

Complete the screen by filling in the boxes with the appropriate numbers. Total the numbers for the final screening score.

<b>Screening</b>	
<b>A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?</b> 0 = severe decrease in food intake 1 = moderate decrease in food intake 2 = no decrease in food intake	<input type="checkbox"/>
<b>B Weight loss during the last 3 months</b> 0 = weight loss greater than 3 kg (6.6 lbs) 1 = does not know 2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs) 3 = no weight loss	<input type="checkbox"/>
<b>C Mobility</b> 0 = bed or chair bound 1 = able to get out of bed / chair but does not go out 2 = goes out	<input type="checkbox"/>
<b>D Has suffered psychological stress or acute disease in the past 3 months?</b> 0 = yes      2 = no	<input type="checkbox"/>
<b>E Neuropsychological problems</b> 0 = severe dementia or depression 1 = mild dementia 2 = no psychological problems	<input type="checkbox"/>
<b>F1 Body Mass Index (BMI) (weight in kg) / (height in m)<sup>2</sup></b> <input type="checkbox"/> 0 = BMI less than 19 1 = BMI 19 to less than 21 2 = BMI 21 to less than 23 3 = BMI 23 or greater	<input type="checkbox"/>
IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2. DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.	
<b>F2 Calf circumference (CC) in cm</b> 0 = CC less than 31 3 = CC 31 or greater	<input type="checkbox"/>
<b>Screening score</b> (max. 14 points)	<input type="checkbox"/> <input type="checkbox"/>
12-14 points: <input type="checkbox"/> Normal nutritional status	<input type="button" value="Save"/>
8-11 points: <input type="checkbox"/> At risk of malnutrition	<input type="button" value="Print"/>
0-7 points: <input type="checkbox"/> Malnourished	<input type="button" value="Reset"/>

# Evaluating Malnutrition: Screening & Assessment

## Screening Tool: Malnutrition Screening Tool (MST)

### Malnutrition Screening Tool (MST)

#### STEP 1: Screen with the MST

1 Have you recently lost weight without trying?

No	0
Unsure	2

If yes, how much weight have you lost?

2-13 lb	1
14-23 lb	2
24-33 lb	3
34 lb or more	4
Unsure	2

Weight loss score:

2 Have you been eating poorly because of a decreased appetite?

No	0
Yes	1

Appetite score:

Add weight loss and appetite scores

MST SCORE:

#### STEP 2: Score to determine risk

**MST = 0 OR 1  
NOT AT RISK**

Eating well with little or no weight loss

If length of stay exceeds 7 days, then rescreen, repeating weekly as needed.

**MST = 2 OR MORE  
AT RISK**

Eating poorly and/or recent weight loss


Rapidly implement nutrition interventions. Perform nutrition consult within 24-72 hrs, depending on risk.

**STEP 3: Intervene with nutritional support for your patients at risk of malnutrition.**

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Evaluating Malnutrition: Screening & Assessment

## Assessment Tool: Global Leadership Initiative on Malnutrition (GLIM)



### GLIM criteria

**for the diagnosis of malnutrition**

A consensus report from the global clinical nutrition community\*

#### WHAT IS GLIM?

The Global Leadership Initiative on Malnutrition (GLIM) focuses on building a global consensus around **core diagnostic criteria for malnutrition** in adults in clinical settings.

#### GLIM DIAGNOSTIC CRITERIA

Malnutrition diagnosis requires the fulfillment of at least 1 phenotypic and 1 etiologic criterion


#### 2-STEPS

### DIAGNOSIS OF MALNUTRITION


#### 1. SCREENING

Perform nutrition screening by any **validated screening tool** to identify patients **"at risk for malnutrition"**


#### Phenotypic Criteria



>5% within past 6 months or >10% beyond 6 months




<20 if <70 years or <22 if >70 years  
Asia: <18.5 if <70 years or <20 if >70 years




Reduced by validated body composition measuring techniques

#### Etiologic Criteria



Of <50% of ER >1 week, or any reduction for 2 weeks, or any chronic GI condition that adversely impacts food assimilation or absorption




Acute disease/injury or chronic disease-related

#### 2. DIAGNOSIS - APPLY GLIM CRITERIA

Assessment for diagnosis using GLIM criteria then grade the severity of malnutrition

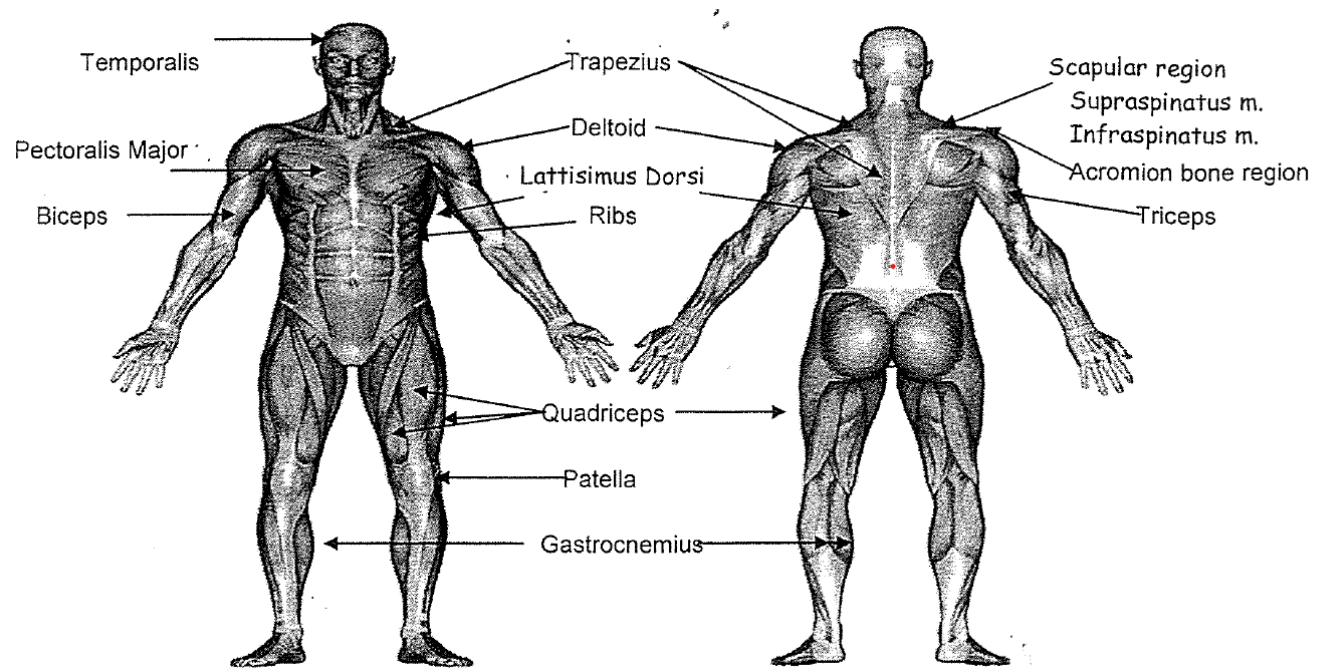
GRADE SEVERITY OF MALNUTRITION <i>based on phenotypic criteria</i>	WEIGHT LOSS	LOW BMI	REDUCED MUSCLE MASS
	<b>STAGE 1 MODERATE MALNUTRITION</b> <i>requires 1 criterion</i>	>5-10% in 6 months or >10-20% in more than 6 months	<20 if <70 years or <22 if >70 years
<b>STAGE 2 SEVERE MALNUTRITION</b> <i>requires 1 criterion</i>	>10% in 6 months or >20% in more than 6 months	<18.5 if <70 years or <20 if >70 years	Severe deficit (per validated assessment methods)

\*ASPEN, ESPEN, FELANPE and PENZA representatives constituted the core leadership committee to form GLIM. Cederholm T, et al. *Clin Nutr.* 2019;38(1):1-9. doi:10.1016/j.clnu.2018.08.002  
Barazzoni R, et al. *Clin Nutr.* 2022;41(6):1425-1433. doi:10.1016/j.clnu.2022.02.001



# Evaluating Malnutrition: Screening & Assessment

Assessment Tool:  
Comprehensive  
RD Assessment  
including  
**Nutrition Focused  
Physical Exam  
(NFPE)**



# Preventing Malnutrition

- Snack program
- Fortified food and beverage program
- Med pass with a 2 kcal/ml oral nutrition supplement
- Weights!
- Timely assessment of any unintended weight loss
- Oral care
- Meal times: “all hands on deck”
- CNAs in care plan meetings and skin/weight committee meetings
- Examine dining program
- Liberalized/individualized diets (Pioneer Network)

# Dysphagia and Aspiration - Definitions

Dysphagia – a swallowing disorder that can range in etiology and severity

Aspiration – when food, liquid, saliva, gastric contents, or foreign object enters the airway and progresses below the level of the vocal folds

Silent Aspiration – aspiration which occurs without coughing, choking, etc.

Aspiration Pneumonia (PNA) – a pulmonary infection that results from foreign substances entering the lung



Dysphagia affects 12-53% LTC residents.

Aspiration PNA is the 5<sup>th</sup> leading cause of death in patients 65 yrs or older, 3<sup>rd</sup> leading cause of death in patients 85 years or older.

# Dysphagia and Aspiration: Evaluation and Prevention

## Understanding Signs and Symptoms of Dysphagia

- Extra effort or time needed to chew or swallow
- Food or liquid leaking from the mouth or getting stuck in the mouth
- Weight loss or dehydration from not being able to eat or drink enough

## Understanding Signs and Symptoms of Aspiration

- Poor secretion management
- Coughing during or after eating or drinking
- Clearing throat during or after eating or drinking
- Wet or gurgly sounding voice during or after eating or drinking
- Recurring pneumonia or chest congestion after eating or drinking
- Watery eyes or reddening of face during or after eating or drinking

# Dysphagia and Aspiration: Evaluation and Prevention

- Dysphagia training for all frontline staff
- Dining program
- RDs are not SLPs!
- **Dementia training for all staff**





# Dementia in Long-Term Care

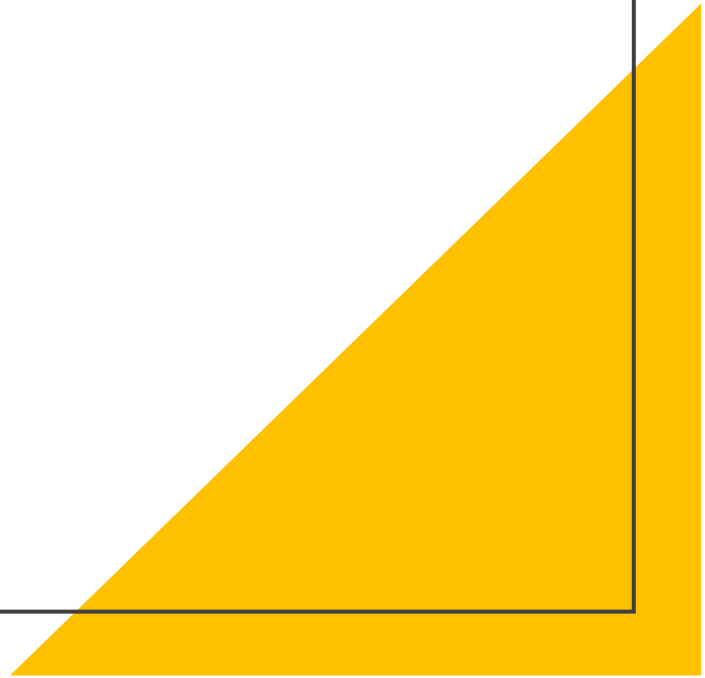
- Highest risk population for malnutrition and dysphagia/aspiration
  - According to one study, 86% of people with advanced dementia develop a feeding problem, and the onset was associated with 39% mortality at 6 months
-

# Dementia and Dysphagia: Behaviors

- Difficulty recognizing food items
- Difficulty using utensils
- Food falling from mouth
- Plays with food
- Pushes food away
- Holds food in mouth
- Spits out food
- Chews without swallowing
- Eats only desserts
- Easily distracted by other items or residents
- Eats paper goods or other objects
- Hides food
- Decreased attention span/difficulty sitting for meals

# Dementia and Dysphagia: Strategies

- Simplify
- Avoid distractions
- Relaxing music
- Lighting
- Extra time
- Adaptive equipment
- Physical assistance
- Hand feeding if necessary
- Always maintain dignity!



# End-Stage Dementia and Nutrition

- There is no way to prevent recurrent aspiration in end-stage dementia
- Placement of feeding tubes is not uncommon in this population
  - ! One study showed that approximately one-third of nursing home residents with advanced cognitive impairment have feeding tubes
- Very emotional time for families and other caregivers: “Food Fight”
- **How can we as healthcare professionals reframe this discussion?**

# End-Stage Dementia and Nutrition

- Compassion
  - Early education
  - Early clarification of healthcare wishes
  - Objective explanation of feeding tubes as well as the dying process
- Introduce the concept of palliative care through these conversations:

## **COMFORT FEEDING**



# “Comfort Feeding Only” (CFO)

The New Dining Practice Standards and The American Geriatrics Society support careful hand feeding as a more compassionate alternative to tube feeding.

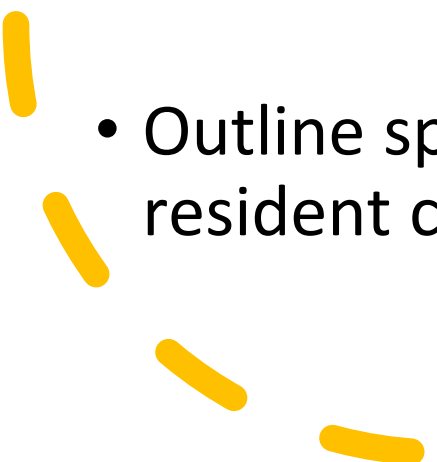
A CFO order can help residents and proxies make decisions regarding oral feeding versus enteral feeding rather than what can be seen as a decision to provide care versus withhold care.

A CFO order can help staff develop an individualized care plan.

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# “Comfort Feeding Only” Care Plan

- Resident focused
  - Outline specific behaviors that would lead to the decision to discontinue hand feeding, focusing on the resident’s level of distress
  - Outline specific interventions the staff will use to continue to keep resident comfortable once hand feeding discontinues
- 

# Conclusions

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- ✓ Interdisciplinary Teamwork
- ✓ Training and Education
- ✓ Systems



Thank you!

# New Day: Nursing Home Education Summit

November 30, 2023 9AM–3PM ET

You do extraordinary work every day.  
Here is an opportunity to learn and grow, be on the cutting edge of best practices,  
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## Our distinguished keynote speakers:

*Moving Needles: Improving Adult Immunization Rates in Post-Acute and Long-Term Care Settings*

**Heather Rooney**

Project Manager, AMDA,  
The Society for Post-Acute and Long-Term Care  
Medicine

*Substance Use Disorders: What You Need to Know*

**Justin Alves, RN, MSN, FNP-C, ACRN, CARN, CNE**

**Kristin Wason, MSN, AGPCNP-BC, CARN**  
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