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The Malnutrition Care Process

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In conjunction with: Clinical Nutrition Department

Disclosures

I have no financial interests or affiliations concerning material discussed in this presentation

Objectives

1. Define malnutrition within the context of inpatient care
2. Learn the malnutrition care process workflow
3. Understand malnutrition screening
4. Describe the nutrition assessment
5. Learn how to diagnose malnutrition
6. Describe steps in how to establish and implement a malnutrition care plan.
7. Improve current workflow and multidisciplinary function within the malnutrition care process.

What is malnutrition?

An acute, subacute or chronic state of nutrition, in which a combination of varying degrees of overnutrition or undernutrition with or without inflammatory activity have led to a change in body composition and diminished function.

Effects of Malnutrition

Malnutrition Is a Critical Public Health and Health Equity Issue



Malnutrition and its risk affect **20–50%** of hospitalized patients¹



Malnutrition is typically diagnosed in **<9%** of hospitalized patients, leaving many potentially undiagnosed and untreated²



Costs are **34%** higher for inpatient hospital stays among malnourished patients than for non-malnourished patients³



Non-Hispanic Black patients with malnutrition have **>26%** readmission rates compared to **<19%** for non-Hispanic White patients with malnutrition⁴

3x the risk for surgical site infection and 2x more likely to develop pressure ulcers

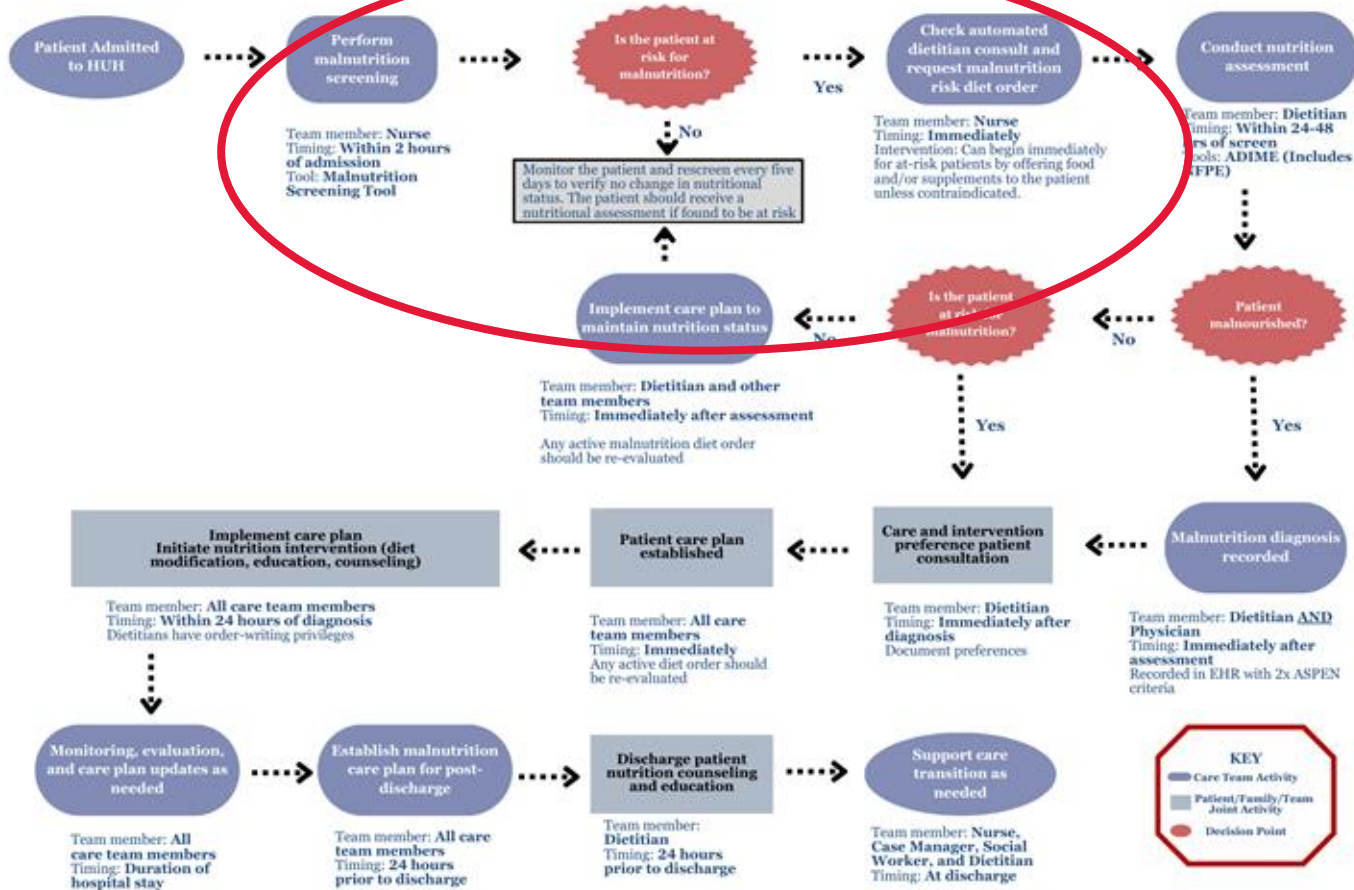
HUH Malnutrition Data

Data Date:	November 2022- October 2023
Total Patients Assessed	5478
Total Documented Recommendation for Malnutrition by Clinical Dietitians (RD):	1338 (24.4%)
RD stated Diagnosis or Plans to Diagnose by on MD/RD Communications	589
Percentage of RD documentation/MD diagnosis:	44%
Number of Patient without Malnutrition diagnosis	749 (56%)

Malnutrition Care Process

1. Malnutrition Screening
2. Nutrition Assessment
3. Malnutrition Diagnosis
4. Malnutrition Care Plan Development & Implementation
5. Malnutrition Monitoring/Evaluation & Discharge Planning

Malnutrition Care Workflow



Malnutrition Screening

- The use of a validated tool to assess for current risk of malnutrition in all hospital admitted patients.
- The goal is to obtain a standardized score to determine if further assessment is needed to diagnose malnutrition.
- If the patient screen shows increased risk of malnutrition, a nutritional consult should be requested as a means for the patient to receive rapid follow-up for a nutritional assessment.
- Intervention can begin immediately for at risk patients by offering food and/or supplements to the patient unless contraindicated.
- Screening may be performed by the physician after admission when malnutrition is suspected.

Malnutrition Screening

- Where is the Malnutrition Screening Tool located?
 - Nursing Documentation
 - Admission Note
 - Multi-disciplinary Referral Screening

- Admission
- Patient History
- Past Medical...
- Health Relat...
- Med History
- Immunization...
- Vitals
- National Ear...
- HEENT
- Neurological
- Cardiovascular
- Respiratory
- Gastrointest...
- Genitourinary
- Musculoskeletal
- Psycho Social
- Integumentar...
- IV Site
- Morse Fall R...
- Pain
- Safety Asses...
- Columbia Sui...
- Multi-discip...**
- Education Mu...
- SBIRT - Gran...
- Vaccination ...

Multi-disciplinary Referral Screening

Venous Thrombo-embolism (VTE) / Deep Vein Thrombosis (DVT) Screening

ALL PATIENTS are to be screened for risk of VTE / DVT. Check all conditions that apply (below).

- | | |
|--------------------------|--|
| Surgery | <input checked="" type="radio"/> No Surgery
<input type="radio"/> Minor Surgery
<input type="radio"/> Major Surgery |
| Age | <input type="radio"/> 1 - 39 Years
<input type="radio"/> 40 - 60 Years
<input checked="" type="radio"/> 61 - 70 Years
<input type="radio"/> 71 Years or greater |
| Acute Infectious Disease | <input checked="" type="radio"/> No Acute Infectious Disease
<input type="radio"/> Acute Infectious Disease |
| Varicose Veins | <input checked="" type="radio"/> No Varicose Veins
<input type="radio"/> Varicose Veins |
| Smoking | <input checked="" type="radio"/> Non-Smoker
<input type="radio"/> Smoker |
| Hypercysteinemia | <input checked="" type="radio"/> No Hypercysteinemia
<input type="radio"/> Hypercysteinemia |
| Central Venous Access | <input type="radio"/> No Central Venous Access
<input checked="" type="radio"/> Central Venous Access |
| Nephrotic Syndrome | <input type="radio"/> No Nephrotic Syndrome
<input checked="" type="radio"/> Nephrotic Syndrome |

Nutritional Screening

Malnutrition Screening Tool

Is patient able to complete assessment at this time? Yes
 No

Step 1: Screen with the Malnutrition Screening Tool

Have you recently lost weight without trying? No

If yes, how much weight have you lost? (1) 2-13 pounds
 (3) 24-33 pounds
 (4) 34 pounds or more
 (2) 14-23 pounds
 Unsure
 No weight loss

Weight Loss Score

Have you been eating poorly because of a decreased appetite? (0) No
 (1) Yes

Appetite Score

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 72 hours, depending on risk

Step 3: Intervene with Nutrition for your patients at risk of malnutrition.

A_H_NutritRef1 Adolescent pregnancy <17 years
 Recent unintentional weight loss (>10 lbs in 3 months)

Appetite: (1) Yes
Appetite Score 1
MST Score

Step 2: Score to determine risk

MST = 0 or 1 - NOT AT RISK - Eating well with little or no weight loss
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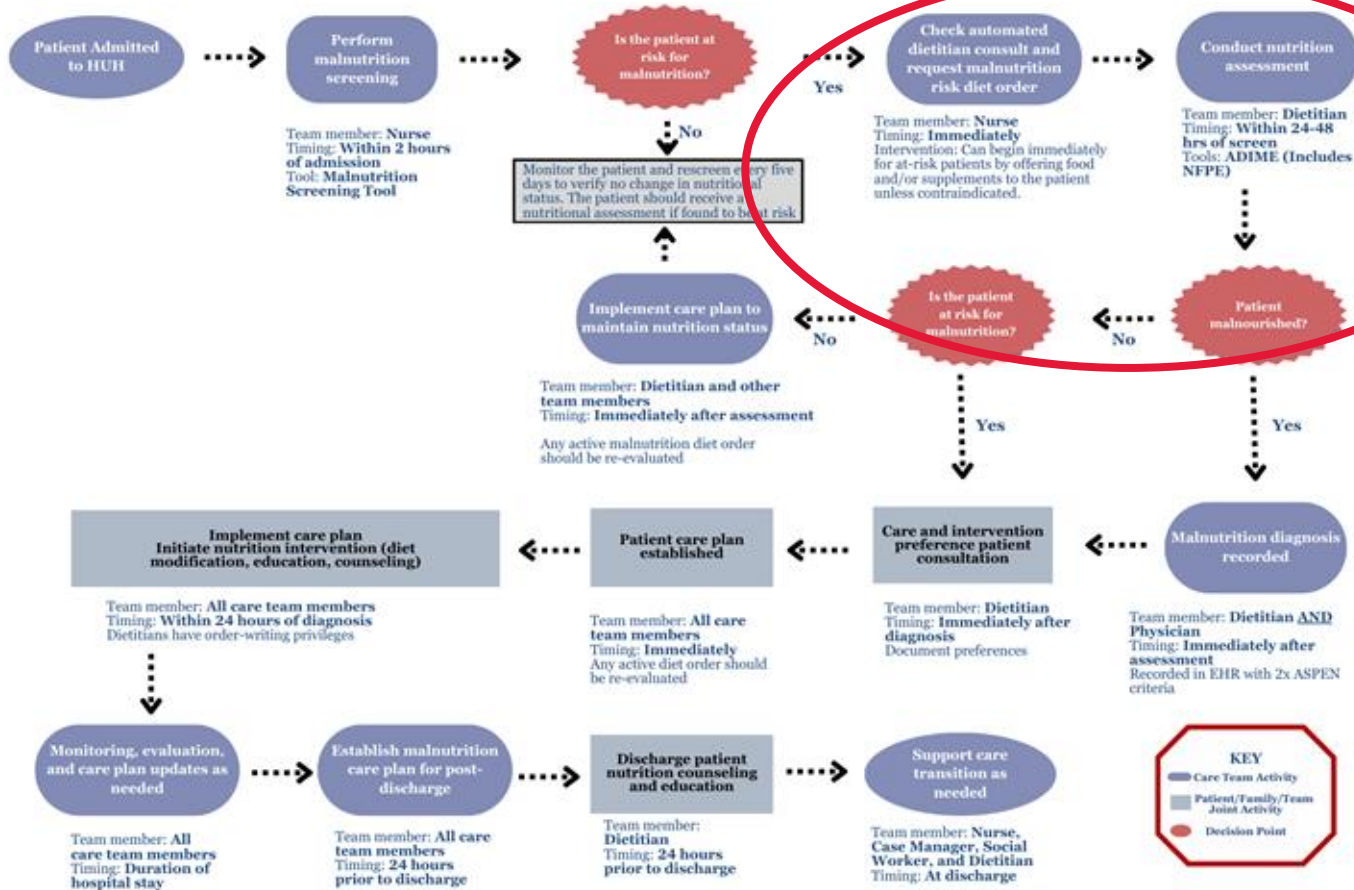
- A_H_NutritRef1
- Adolescent pregnancy <17 years
 - Recent unintentional weight loss (>10 lbs in 3 months)
 - Pressure ulcers (Stage 2 or greater)
 - Persistent nausea/vomiting/diarrhea > 5 days
 - Poor oral intake/clear liquids/NPO >5 days
 - Malnutrition
 - New onset/Gestational Diabetes
 - Ventilated patient
 - Receiving enteral/parenteral feeding
 - Multiple dietary restrictions/allergies/intolerance
 - No risk factors identified

**If any of the criteria is checked,
refer the patient within 24 hours of admission.**

Referral via Electronic Transmission

Comments

Malnutrition Care Workflow



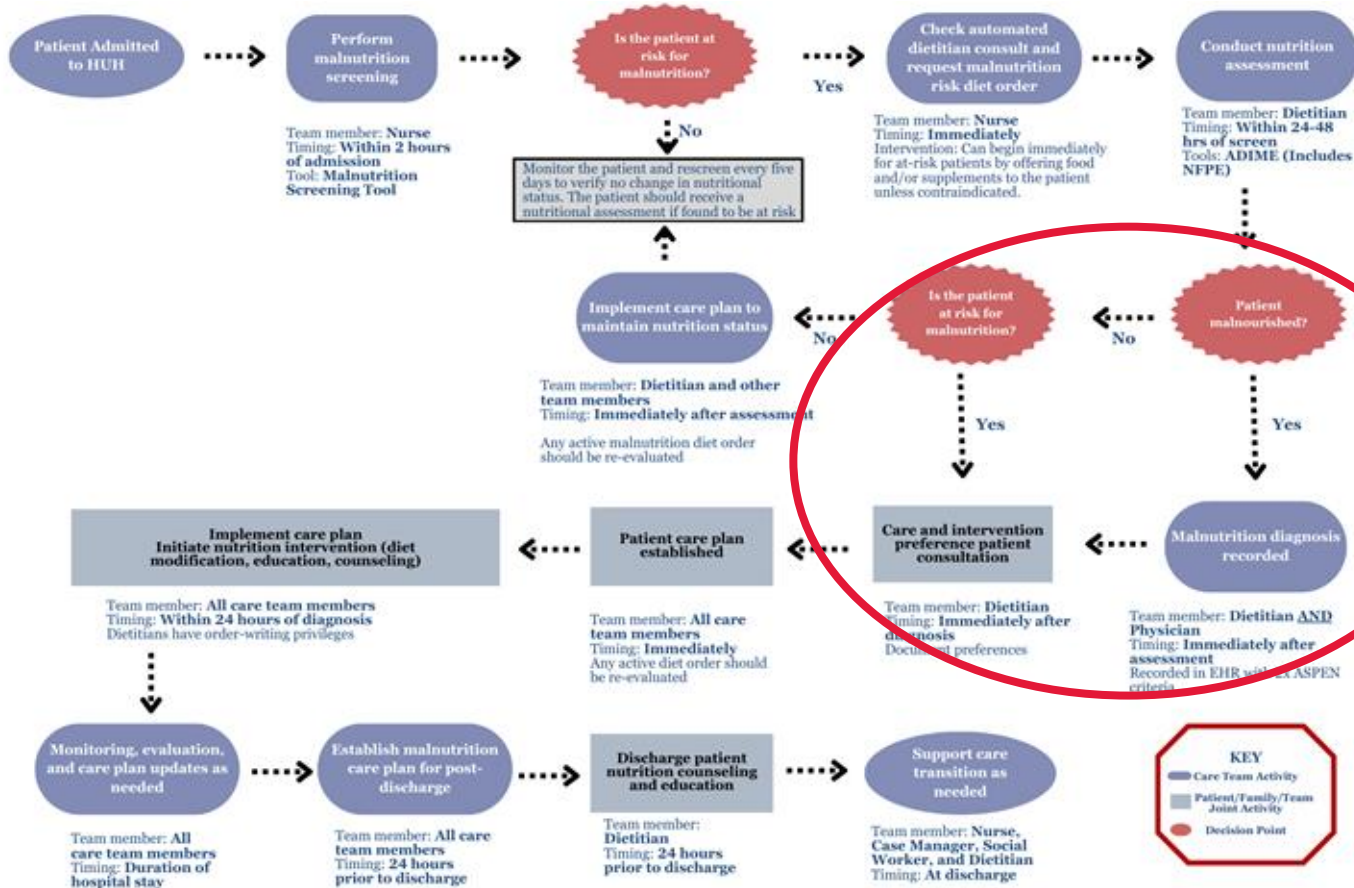
Nutrition Assessment

- Normally performed within 24-48 hours after a referral due to positive malnutrition screen.
- Performed within 5 days of admission in patients who screened negative.
- Should contain recommendations to diagnose with malnutrition
 - ASPEN criteria and other confirming data should be documented
 - Dietitian should contact primary team via phone call or in person and document communication with date and time.

Nutrition Assessment

- Consists of:
 - History of Present Illness
 - Past Medical History
 - Allergies/Intolerances
 - Medications/Supplement Use
 - Social History
 - Family History
 - Dietary History/Nutrition Support
 - Anthropometrics
 - Laboratory Data
 - Nutrition-focused Physical Examination
 - Nutrition Assessment
 - Nutrition Diagnoses
 - Recommendations/Interventions

Malnutrition Care Workflow



Malnutrition Diagnosis

- A malnutrition diagnosis is:
 - Clear in diagnostic criteria
 - Billable
 - Reported as a quality measure for CMS
 - Performed by physicians with recommendation by the dietitian
- How is malnutrition diagnosed?
 - Laboratory data?
 - Nutrition assessment?
 - Diagnostic criteria?
 - **ALL of the above combined**

Malnutrition Diagnosis

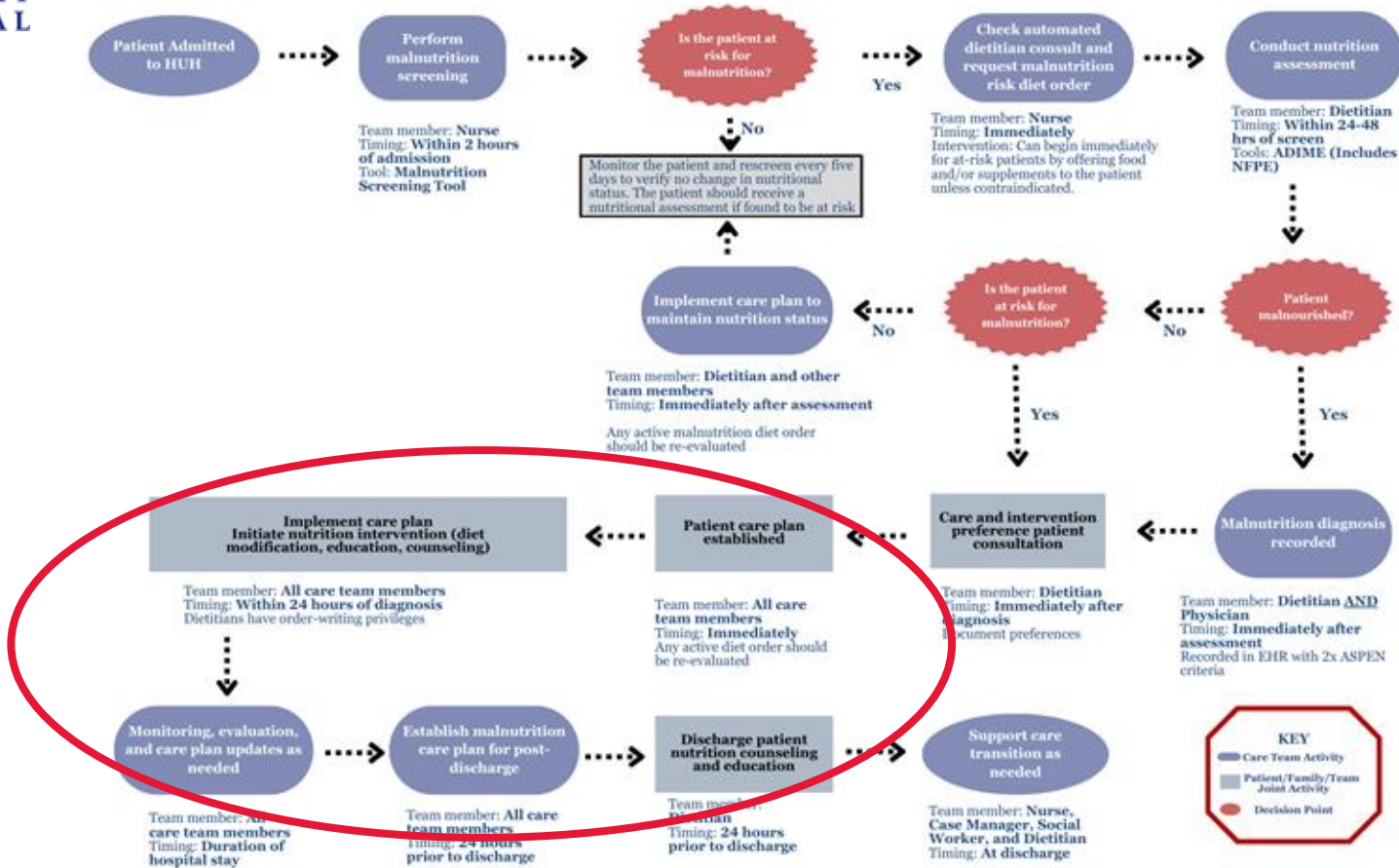
- Physician's role
 - Use the nutrition note recommendation and diagnostic criteria to diagnose malnutrition
 - Document the diagnosis in the problem list with at least TWO DIAGNOSTIC CRITERIA provided by ASPEN
 - Assess for malnutrition in patients who have not received a nutrition assessment for possible referral to clinical nutrition

Malnutrition Diagnosis (ASPEN Criteria)

	Acute Illness or Injury		Chronic Illness		Social or Environmental Factors	
	Moderate Protein Calorie Malnutrition	Severe Protein Calorie Malnutrition	Moderate Protein Calorie Malnutrition	Severe Protein Calorie Malnutrition	Moderate Protein Calorie Malnutrition	Severe Protein Calorie Malnutrition
Energy Intake	<75% of EEE >7 days	≤50 % of EEE >5 days	<75% of EEE ≥1 month	<75% of EEE ≥1 month	<75% of EEE ≥3 months	≤50% of EEE ≥1 month
Weight Loss	1–2% 1 week 5% 1 month 7.5% 3 months	>2% 1 week >5% 1 month >7.5% 3 months	5% 1 month 7.5% 3 months 10% 6 months 20% 1 year	>5% 1 months >7.5% 3 months >10% 6 months >20% 1 year	>5% 1 month >7.5% 3 months >10% 6 months >20% 1 year	> 5% 1 month >7.5% 3 months >10% 6 months > 20% 1 year
Body Fat Loss	Mild	Moderate	Mild	Severe	Mild	Severe
Muscle Mass Wasting	Mild	Moderate	Mild	Severe	Mild	Severe
Fluid (Edema)	Mild	Moderate to Severe	Mild	Moderate to Severe	Mild	Moderate to Severe
Hand Grip Strength	N/A	Measurably Reduced	N/A	Measurably Reduced	N/A	Measurably Reduced

EEE: Estimated energy expenditure N/A: Not applicable
Reference: Academy of Nutrition and Dietetics & American Society of Parenteral and Enteral Nutrition Clinical Characteristics Malnutrition 2011.

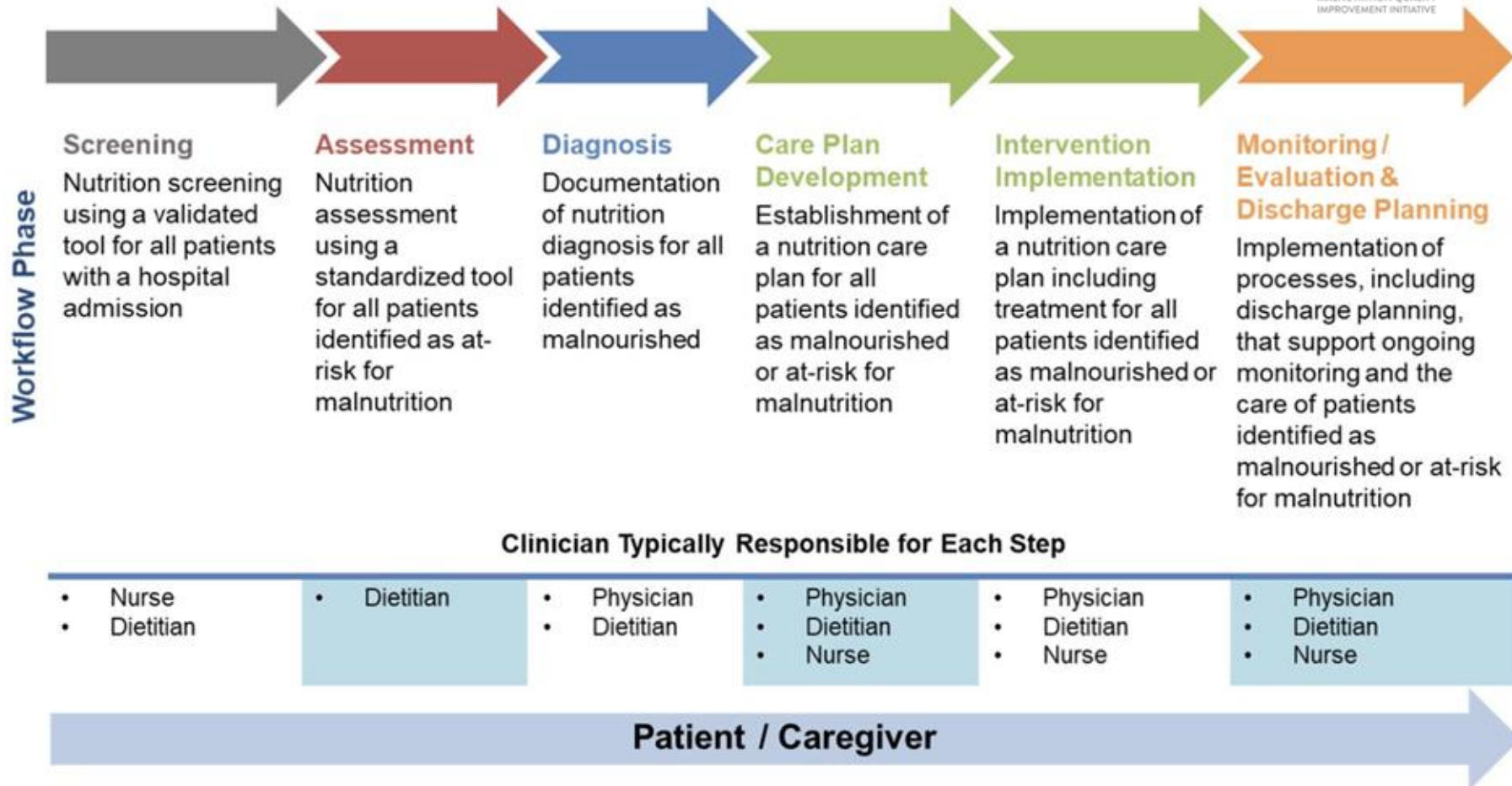
Malnutrition Care Workflow



Malnutrition Care Plan

- Goal: to work in conjunction with nurses and dietitians to create, implement, and monitor a patient specific care plan while admitted in the hospital.
 - Should be done through multidisciplinary rounds both on the surgical floors as well as in the SICU and documented in progress notes.
 - Care plan should include:
 - Dietary modifications
 - Nutrition education
 - Dietary counseling
 - Monitoring and evaluation parameters should be set
 - Should develop into discharge planning which should be documented in the discharge documentation.

Malnutrition Care Workflow



Questions?

Please take the
final survey:



Please take the
training evaluation:



References

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2. Mueller, C., Compher, C., Ellen, D.M. and (2011), A.S.P.E.N. Clinical Guidelines. *Journal of Parenteral and Enteral Nutrition*, 35: 16-24. <https://doi.org/10.1177/0148607110389335>.
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