Diagnosis and Documentation of Neonatal and Pediatric Malnutrition in the Hospital-Based Care Setting Clinical Practice Guideline

Approved by the SSM Health Pediatric Clinical Practice Guidelines Committee:
November 1, 2026

Approved by the SSM Health Pediatric Clinical Program:
November 16, 2026

Inclusion Criteria

Pediatric patients (including preterm infants) age 0-18 receiving care in the Hospital-Based Care setting with nutritional risk identified by one or more of the following:

1. Nurse admission screening
2. RDN screening or Nutrition consult
3. Physician concern for poor growth or malnutrition based on clinical condition or underlying disease process

Premature and Neonate Pathway

- All infants < 30 days of age, regardless of gestational age
- Preterm infants (defined by Gestational Age at birth of < 37 weeks) who have not reached ≥ 37 weeks corrected gestational age, even if age is ≥ 30 days

Pediatric Pathway

- Children age ≥ 30 days to 18 years, including Preterm Infants (defined by Gestational Age at Birth of < 37 weeks) who have reached ≥ 37 weeks corrected gestational age within the stated age parameters

EVALUATE PREMATURE AND NEONATE MALNUTRITION INDICATORS

- Utilize appropriate table below based on the number of data points available (1 or 2 data points) and ensure criteria are appropriately applied based on patient age

1 Data Point Available

	Consecutive Days of Inadequate Nutrient Intake, defined as ≤ 75% estimated needs^	Days to Regain Birth Weight ^^
MILD MALNUTRITION	3-4	15-18 days
MODERATE MALNUTRITION	5-7	19-21 days
SEVERE MALNUTRITION	More than 7	> 21 days

^ = Preferred indicator for first 2 weeks of life
^^ = Cannot be used as sole indicator, must be paired with inadequate nutrient intake for diagnosis

2 Data Points Available

	Decline in weight-for-age Z-score ^^^	Weight gain velocity ^^^ (*Table 1, Page 2*)
MILD MALNUTRITION	Decline of 0.8 to 1.2 standard deviation	< 75% expected rate of weight gain to maintain growth rate
MODERATE MALNUTRITION	Decline of greater than 1.2 to 2 standard deviation	< 50% expected rate of weight gain to maintain growth rate
SEVERE MALNUTRITION	Decline of greater than 2 standard deviation	< 25% expected rate of weight gain to maintain growth rate

^^^ = Not appropriate for use in the first 2 weeks of life

EVALUATE PEDIATRIC MALNUTRITION INDICATORS

- Utilize appropriate table below based on the number of data points available (1 or 2 data points) and ensure criteria are appropriately applied based on patient age

1 Data Point Available

	Weight for Height Z-score (< 2 years of age)	BMI for age Z-score (2-18 years of age)	Length/ height Z-score	Mid-upper arm circumference Z-score ^
MILD MALNUTRITION	-1.0 to -1.9	-1.0 to -1.9	No data	-1.0 to -1.9
MODERATE MALNUTRITION	-2.0 to -2.9	-2.0 to -2.9	No data	-2.0 to -2.9
SEVERE MALNUTRITION	-3.0 or greater	-3.0 or greater	-3.0	-3.0 or greater

^ = Used for age 2 months and older only

2 Data Points Available

	Weight Gain Velocity (< 2 years of age) (*Table 1, Page 2*)	Weight Loss (2-18 years of age)	Decline in weight for length/height or BMI Z-score	Inadequate Nutrient Intake
MILD MALNUTRITION	< 75% of expected	5% usual body weight	Decline of 1 Z-score	51-75% estimated protein/energy need
MODERATE MALNUTRITION	< 50% of expected	7.5% usual body weight	Decline of 2 Z-score	26-50% estimated protein/energy need
SEVERE MALNUTRITION	< 25% expected	10% usual body weight	Decline of 3 Z-score	≤ 25% estimated protein/energy need

One indicator (or more) of malnutrition present?

NO → **Does not meet criteria for malnutrition, continue care and reassess as clinically indicated**

YES

1. **If more than one indicator is present, use the most severe indicator for diagnosis**
2. **Determine chronicity**
   a. **Acute: < 3 months**
   b. **Chronic: ≥ 3 months**

RDN Nutrition-Focused Physical Exam (NFPE) and Documentation

- NFPE uses a head-to-toe approach to evaluate muscle mass, fat stores, fluid retention, micronutrient deficiencies, and functional capacity
- RDN will document NFPE in clinical note to support Malnutrition diagnosis, as well as in nutrition flowsheet in Epic

PHYSICIAN DOCUMENTATION AND RDN COMMUNICATION

- At Cardinal Glennon: RDN will complete templated note with summarized nutritional diagnostic findings and send to the Inpatient Attending Physician
- Attending physician should attest the nutrition note using the dot-phrase .cgmalattest to capture the diagnosis in the chart.
- The physician may modify or amend the diagnosis or refuse to attest if there is disagreement, but should document the disagreement elsewhere

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TABLE 1: Weight Gain Velocity								
Age	**Median grams/day**		**Mild Malnutrition < 75% median**		**Moderate Malnutrition < 50% median**		**Severe Malnutrition < 25% median**	
	Males	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**
0-29 days	35	30	26	22.5	18	15	9	7.5
30-60 days	40	34	30	26	20	17	10	8.5
2-4 months	25	24	19	18	12.5	12	6	6
4-6 months	16	15	15	11	8	7.5	4	4
6-9 months	11	10	8	8	6	6	3	3
9-12 months	9	8	7	6	4.5	4	2	2
12-18 months	7	7	5	5	3.5	3.5	2	2
18-24 months	7	7	5	5	3.5	3.5	2	2

GUIDELINE AIM

- Standardize the evidence-based criteria for diagnosis of Neonatal and Pediatric Malnutrition in the Hospital-Based Care setting
- Support appropriate documentation of Neonatal and Pediatric Malnutrition through unified definitions and standardized processes

GUIDELINE AUTHORS (DEPARTMENT):
Katy Carter, RDN - Clinical Nutrition Manager
Chelsea Bertelsmann, RDN – Lead RDN
Physician Sponsor: Andrew Ellis, MD (Pediatric Hospital Medicine)

SSM Pediatric Clinical Practice Guidelines Sub-Committee Chair:
Andrew Ellis, MD

SSM Pediatric Clinical Program Chair:
Andrew J. White, MD

SSM HEALTH CARDINAL GLENNON ACCESS CENTER
1-888-229-2424

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References

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2. Goldberg D, Becker P, Brigham K, et al. Identifying Malnutrition in Preterm and Neonatal Populations: Recommended Indicators. *J Acad Nutr Diet*. 2018; 118(9): 1571-1582.
3. Hummell AC, Cummings M. Role of the nutrition-focused physical examination in identifying malnutrition and its effectiveness. *Nutr Clin Pract*. 2022; 37(1): 41-49.
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GUIDELINE DISCLAIMER

This guideline was developed by the listed authors using publicly available evidence and expert opinion and is approved for clinician use in the SSM Health System by the listed committees. The guideline is intended for use by providers treating pediatric patients and may broadly be applied to the majority of patients being treated for the addressed condition(s). The guideline is not meant to replace clinical judgement in individual cases, and care must be taken to address the needs of each individual patient and family to ensure appropriate, timely, and quality care is provided in each clinical encounter. As medicine is always changing and evolving, SSM Health, the listed authors and committees, and any other party involved in the authorship and distribution of this guideline is not responsible for errors, omissions, or outcomes related to clinician use of the guideline.