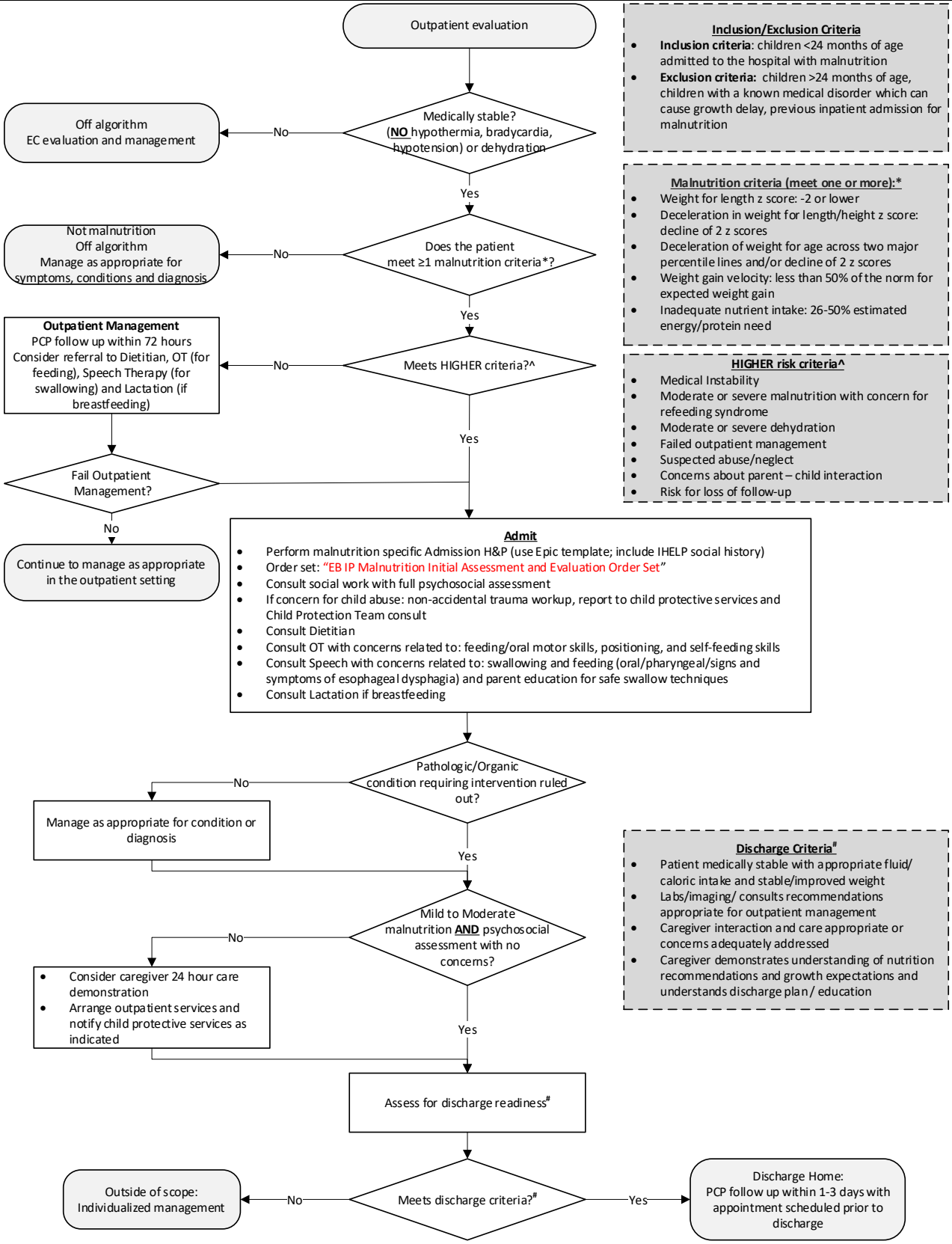
# TEXAS CHILDREN'S HOSPITAL
## EVIDENCE-BASED OUTCOMES CENTER
Malnutrition: Initial Assessment and Evaluation
Evidence-Informed Pathway



## Critical Points of Evidence*

### *Evidence Supports*

- Providers should consider obtaining an upper GI or endoscopy in children admitted with malnutrition and vomiting.[3-7] –Weak recommendation, very low quality evidence

### *Evidence Against*

- Providers should not obtain screening labs and imaging in children with malnutrition without specific indication identified on history and physical exam as it does not change the diagnosis or management in these patients.[3-7] – Strong recommendation, very low quality evidence

### *Consensus Recommendations*

- A multidisciplinary team should be involved with all pediatric malnutrition admissions. Consult social work with full psychosocial assessment. If concern for child abuse: complete non-accidental trauma workup, report to child protective services, and consult Child Protection Team. Consult Dietitian. Consult OT with concerns related to: feeding/oral motor skills, positioning, and self-feeding skills. Consult Speech with concerns related to: swallowing and feeding (oral/pharyngeal/signs and symptoms of esophageal dysphagia) and parent education for safe swallow techniques. Consult Lactation if breastfeeding. –Consensus recommendation
- If a patient with malnutrition is at risk for refeeding syndrome refer to the Refeeding Syndrome Guideline. –Consensus recommendation

*NOTE: The references cited represent the entire body of evidence reviewed to make each recommendation.

## References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10. Becker, Patricia J. et al. "Consensus Statement of the Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition: Indicators Recommended for the Identification and Documentation of Pediatric Malnutrition (Undernutrition)." *Journal of the Academy of Nutrition and Dietetics* 114.12 (2014): 1988–2000. Web.

## Clinical Standards Preparation

This pathway was adapted from clinical standards at Nationwide Children's Hospital as part of the Pediatric Initiative for Clinical Standards (PICS) Collaborative. Development of this clinical standard supports the TCH Quality and Patient Safety Program initiative to promote clinical standards and outcomes that build a culture of quality and safety within the organization.

**Malnutrition: Initial Assessment and Evaluation Content Expert Team**

Lanessa Bass, MD, Pediatric Hospital Medicine
Elisabeth Hastings, Clinic Nutrition Specialist, Food & Nutrition
Huay-Ying Lo, MD, Pediatric Hospital Medicine
Heather Morand-Reid, RN, Nursing
Elizabeth Spoede, Clinical Nutrition Specialist, Food & Nutrition
Joyee Vachani, MD, Pediatric Hospital Medicine
Lauren Schrenk M.A., CCC-SLP, CLC, Speech Pathology
EBOC Team

No relevant financial or intellectual conflicts to report.

## Development Process

This clinical standard was developed using the process outlined in the EBOC Manual. The literature appraisal documents the following steps:

1. Review Preparation
   - PICO questions established
   - Evidence search confirmed with content experts
2. Review of Existing External Guidelines
   - World Health Organization, Updates on the Management of Severe Acute Malnutrition in Infants and Children, 2013; A Practical Approach to Classifying and Managing Feeding Difficulties, 2015
3. Literature Review of Relevant Evidence
   - Searched: PubMed, Cochrane Library
4. Critically Analyze the Evidence
   - 0 meta-analyses, 1 randomized **controlled** trial, and 4 nonrandomized studies, as applicable
5. Summarize the Evidence
   - Materials used in the development of the clinical standard, literature appraisal, and any order sets are maintained in a Failure to Thrive evidence-based review manual within EBOC.

## Evaluating the Quality of the Evidence

Published clinical guidelines were evaluated for this review using the **AGREE II** criteria. The summary of these guidelines are included in the literature appraisal. AGREE II criteria evaluate Guideline Scope and Purpose, Stakeholder Involvement, Rigor of Development, Clarity and Presentation, Applicability, and Editorial Independence using a 4-point Likert scale. The higher the score, the more comprehensive the guideline.

This clinical standard specifically summarizes the evidence *in support of* or *against* specific interventions and identifies where evidence is *lacking/inconclusive*. The following categories describe how research findings provide support for treatment interventions.

***"Evidence Supports"*** provides evidence to support an intervention

***"Evidence Against"*** provides evidence against an intervention.

***"Evidence Lacking/Inconclusive"*** indicates there is insufficient evidence to support or refute an intervention and no conclusion can be drawn *from the evidence.*

The **GRADE** criteria were utilized to evaluate the body of evidence used to make practice recommendations. The table below defines how the quality of the evidence is rated and how a strong versus weak recommendation is established. The literature appraisal reflects the critical points of evidence.

| Recommendation | |
|---|---|
| **STRONG** | Desirable effects clearly outweigh undesirable effects or vice versa |
| **WEAK** | Desirable effects closely balanced with undesirable effects |
| **Quality** | **Type of Evidence** |
| **High** | Consistent evidence from well-performed RCTs or exceptionally strong evidence from unbiased observational studies |
| **Moderate** | Evidence from RCTs with important limitations (e.g., inconsistent results, methodological flaws, indirect evidence, or imprecise results) or unusually strong evidence from unbiased observational studies |
| **Low** | Evidence for at least 1 critical outcome from observational studies, RCTs with serious flaws or indirect evidence |
| **Very Low** | Evidence for at least 1 critical outcome from unsystematic clinical observations or very indirect evidence |

## Recommendations

Practice recommendations were directed by the existing evidence and consensus amongst the content experts. Patient and family preferences were included when possible. The Content Expert Team and EBOC team remain aware of the controversies in the diagnosis/management of failure to thrive in children. When evidence is lacking, options in care are provided in the clinical standard and the accompanying order sets (if applicable).

## Approval Process

Clinical standards are reviewed and approved by hospital committees as deemed appropriate for its intended use. Clinical standards are reviewed as necessary within EBOC at Texas Children's Hospital. Content Expert Teams are involved with every review and update.

## Disclaimer

Practice recommendations are based upon the evidence available at the time the clinical standard was developed. Clinical standards (guidelines, summaries, or pathways) do not set out the standard of care and are not intended to be used to dictate a course of care. Each physician/practitioner should use his or her independent judgment in the management of any specific patient and is responsible, in consultation with the patient and/or the patient's family, to make the ultimate judgment regarding care.

## Permission of Use



**Version History**

| Date | Action | Comments |
|---|---|---|
| May 2018 | First Iteration | |
| Mar 2023 | Reaffirmed with revisions | Updated criteria to reflect z scores. Changed terminology from "failure to thrive" to "malnutrition". |