

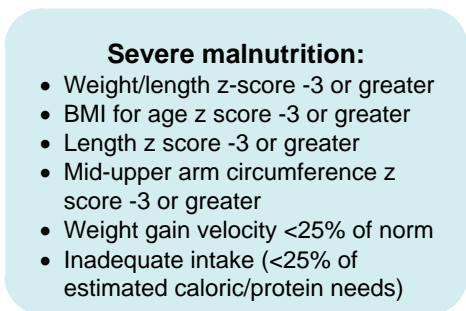
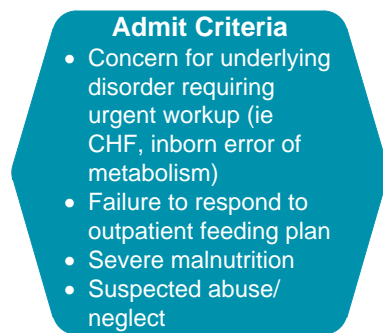
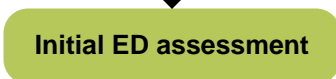
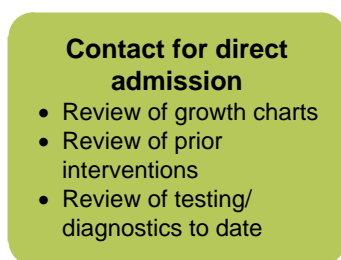
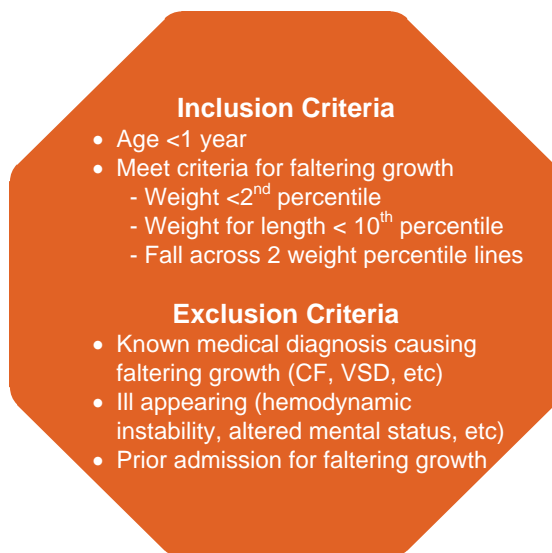
# Faltering Growth v1.0: Direct admission and ED management

[Approval & Citation](#)

[Summary of Version Changes](#)

[Explanation of Evidence Ratings](#)

## PHASE I (E.D.)



# Faltering Growth v1.0: Inpatient Management

[Approval & Citation](#)

[Summary of Version Changes](#)

[Explanation of Evidence Ratings](#)

## PHASE II (Inpatient)

**Inclusion Criteria**

- Age <1 year
- Meet criteria for faltering growth
  - Weight <2<sup>nd</sup> percentile
  - Weight for length < 10<sup>th</sup> percentile
  - Fall across 2 weight percentile lines

**Exclusion Criteria**

- Known medical diagnosis causing faltering growth (CF, VSD, etc)
- Ill appearing (hemodynamic instability, altered mental status, etc)
- Prior admission for faltering growth

**Measurements**

- Input growth chart data from PCP into CIS if available

**Document feeding behaviors and dynamics**

- Was the caregiver focused on the infant during the feeding?
- Did the caregiver start the feed at based on hunger cues/time since last feed?
- Did the caregiver end the feed at based on satiety cues/volume taken?
- Did the caregiver establish an appropriate environment for the feed (minimal distractions, positioning, etc)?
- Did the feeding seem enjoyable for the infant and caregiver with minimal stress or tension?

**Inpatient Admission**

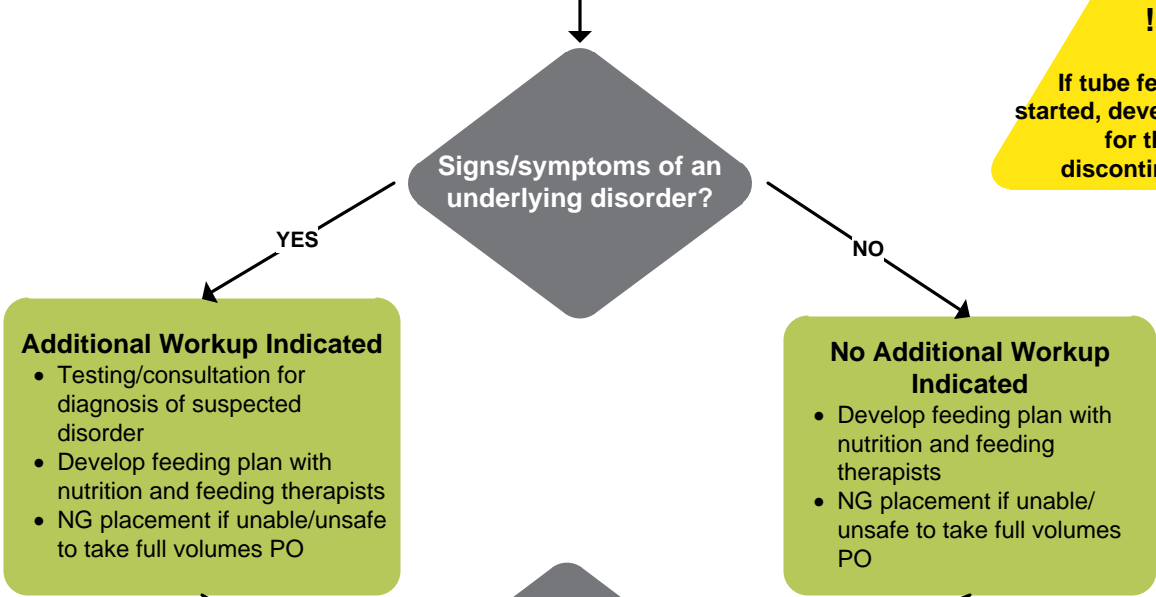
- Obtain a comprehensive history and physical including:
  - pregnancy and birth history
  - family and social history (including food/housing insecurity)
  - feeding history (type of feeds, frequency, type of bottle/nipple used, feed preparation, environment during feeds)
  - breastfeeding/pumping history
  - concerning symptoms (increased WOB, stridor, abnormal stool etc)
  - review of all outside records including past interventions and available growth charts
- Observed feedings
- Obtain consults within 24 hours from:
  - Nutrition
  - PT/OT
  - Lactation (if applicable)
  - Social work

!

**Consider admit M-Th during daytime hours if possible**

!

**If tube feeds are started, develop criteria for their discontinuation**



**Discharge Teaching**

- Provide written detailed feeding plan to family and include in discharge summary

**Discharge Criteria**

- Weight gain on current feeding plan
- Additional workup completed
- Teaching complete
- Follow up arranged with planned twice weekly weight checks

**Discharge Instructions**

- Nutrition plan (mixing formula, etc)
- PT/OT plan (positioning, bottle type, etc)
- NG/pump teaching if applicable

# Faltering Growth Approval & Citation

Approved by the CSW Faltering Growth team for December 7, 2018

## CSW Faltering Growth Team:

Hospital Medicine, Owner  
Hospital Medicine  
Hospital Medicine  
Medical unit CNS  
GME  
Nutrition  
PT/OT  
Emergency Department  
Social Work  
Social Work  
Care Coordination

Jessica Warner-Grant, MD, PhD  
Elena Griego, MD  
Joel Tieder, MD  
Ellie McMahon, MSN, RN, CPN  
Kelly Dundon, MD  
Gillian Coy, CD  
Robin Glass, MS, OTR, IBCLC  
Ryan Kearney, MD  
Renee Schulz, LSWAIC  
Lauren Wadlington, LICSW  
Lisa Taliaferro, RN

## Clinical Effectiveness Team:

Consultant:  
Project Manager:  
CIS Informatician:  
CIS Analyst:  
Program Coordinator:

Darren Migita, MD  
Asa Herrman  
Brian Cartin  
Julia Hayes  
Kristyn Simmons

## Executive Approval:

Sr. VP, Chief Medical Officer  
Sr. VP, Chief Nursing Officer  
Surgeon-in-Chief

Mark Del Beccaro, MD  
Madlyn Murrey, RN, MN  
Bob Sawin, MD

Retrieval Website: <http://www.seattlechildrens.org/pdf/faltering-growth-pathway.pdf>

## Please cite as:

Seattle Children's Hospital, Warner-Grant J, Coy G, Dundon K, Glass R, Griego E, Taliaferro L, Tieder J, Kearney R, Migita D, Schulz R, Wadlington L, 2018 October. Faltering Growth Pathway. Available from: <http://www.seattlechildrens.org/pdf/faltering-growth-pathway.pdf>

# Evidence Ratings

This pathway was developed through local consensus based on published evidence and expert opinion as part of Clinical Standard Work at Seattle Children's. Pathway teams include representatives from Medical, Subspecialty, and/or Surgical Services, Nursing, Pharmacy, Clinical Effectiveness, and other services as appropriate.

When possible, we used the GRADE method of rating evidence quality. Evidence is first assessed as to whether it is from randomized trial or cohort studies. The rating is then adjusted in the following manner (from: Guyatt G et al. J Clin Epidemiol. 2011;4:383-94.):

Quality ratings are *downgraded* if studies:

- Have serious limitations
- Have inconsistent results
- If evidence does not directly address clinical questions
- If estimates are imprecise OR
- If it is felt that there is substantial publication bias

Quality ratings are *upgraded* if it is felt that:

- The effect size is large
- If studies are designed in a way that confounding would likely underreport the magnitude of the effect OR
- If a dose-response gradient is evident

Guideline – Recommendation is from a published guideline that used methodology deemed acceptable by the team.

Expert Opinion – Our expert opinion is based on available evidence that does not meet GRADE criteria (for example, case-control studies).

## Quality of Evidence:

★★★★ High quality

★★★○ Moderate quality

★★○○ Low quality

★○○○ Very low quality

Guideline

Expert Opinion

## Summary of Version Changes

- **Version 1.0 (12/7/2018):** Go live

[Return to Home](#)

## Medical Disclaimer

Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required.

The authors have checked with sources believed to be reliable in their efforts to provide information that is complete and generally in accord with the standards accepted at the time of publication.

However, in view of the possibility of human error or changes in medical sciences, neither the authors nor Seattle Children's Healthcare System nor any other party who has been involved in the preparation or publication of this work warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from the use of such information.

Readers should confirm the information contained herein with other sources and are encouraged to consult with their health care provider before making any health care decision.

## Bibliography

Becker, P.; Carney, L.; Corkins, M.; 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). *Nutrition in Clinical Practice* 2014, 30(1): 147-161.

Berwick, D.; Levy, J.; Kleinerman, R. Failure to thrive: diagnostic yield of hospitalization. *Archives of Disease in Childhood* 1982, 57, 347-351.

Ficicioglu, C.; an Haack, K. Failure to thrive: when to suspect inborn errors of metabolism. *Pediatrics* 2009, 124 (3): 972-979.

Larson-Nath, C.; St Clair, N.; Goday, P. Hospitalization for failure to thrive: a prospective descriptive report. *Clinical Pediatrics* 2018, 57(2):212-219.

National Institute for Health and Care Excellence. Faltering growth: recognition and management of faltering growth in children. [National Institute for Health and Care Excellence \(UK\)](#); 2017 Sep.

Thompson, R.; Bennett, W.; Finnell, M.; et al. Increased length of stay and costs associated with weekend admissions for failure to thrive. *Pediatrics* 2013, 131(3): e805-e810.