Inpatient Pediatric Feeding Programs

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Instructions for Use

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Related Policies
None

Coverage Rationale

This clinical guideline addresses inpatient, multi-disciplinary, pediatric feeding disorders programs for infants and young children under age 3 who meet certain qualifications.

Protocol for Initiation of Multi-Disciplinary Intensive Pediatric Feeding Program

An inpatient, multi-disciplinary, pediatric feeding disorders program is indicated for infants and children under three years of age who meet all of the following requirements:

- Have had corrective surgery for a physical defect that prevented normal Enteral Nutrition but who refuse to eat following corrective surgery. The following are examples of qualifying conditions (this list is not all-inclusive):
  - Gastroesophageal reflux disease (GERD)
  - Gastrointestinal motility disorders
  - Cleft palate
  - Tracheo-esophageal fistula
  - Gastrostomy tube dependence
  - Nasogastric feeding tube dependence

  and
- Are medically unstable and require hospitalization for an underlying disorder, including but not limited to one or more of the following:
  - Hypothermia
  - Hypotension
  - Bradycardia or persistent tachycardia
  - Dehydration confirmed on clinical and laboratory grounds
  - Electrolyte abnormalities
  - Congestive heart failure (CHF)

Inpatient pediatric feeding programs are not indicated for members who meet any of the following criteria:

- Are age 3 and older
- Are without a history of corrective surgery for a physical defect that caused earlier feeding problems
- Have a primary diagnosis of failure to thrive
- Are currently using Parenteral Nutrition

- Have developmental, age-related behavioral issues (e.g., temper tantrums) as the primary cause of food refusal
- Refuse certain food groups but not others

Definitions

Enteral Nutrition: The provision of nutritional requirements orally or through a tube into the stomach or intestines. It may be administered by syringe, gravity, or pump.

Parenteral Nutrition: Nutritional support given by means, such as intravenously (IV), other than through the gastrointestinal (GI) tract.

Description of Services

A majority of infants with severe feeding disorders have medical and/or developmental conditions that predispose them to or, are at least associated with, difficulties with feeding such as cleft lip and/or palate (including submucosal cleft), tracheoesophageal fistula, esophageal atresia, stricture, or stenosis, and gastrointestinal disorders.

Conditions that require surgery, multiple diagnostic procedures, or extended periods when a child is not fed by mouth disrupt the normal progression of feeding, communication development, and social interaction. These children may have few opportunities to observe adults or other children eating and they may not experience the sights, smells, and sounds of food preparation or be able to explore foods with their hands and mouths (Borowitz and Borowitz, 2018).

Children with feeding disorders often lack interest in food, have difficult mealtime behavior, complex feeding regimens and often have major ongoing medical problems. Children who are tube fed have often suffered traumatic experiences ranging from nasogastric tube placement to force feeding, resulting in a learned aversion to feeding. As children adjust energy intake automatically, if they are fully enteral fed they will not experience hunger. Thus the transition to a normal diet can be difficult (Wright, 2013).

Clinical Evidence

Paes et al. (2017) conducted a retrospective cohort study on growth and prevalence of feeding difficulties in 69 infants with Robin sequence (a set of abnormalities affecting the head and face) consisting of 69 infants diagnosed with both RS and a cleft palate and 64 isolated cleft palate only (iCPO) infants. Data regarding FD, growth, and airway intervention were collected during the first 2 years of life. A systematic review of the literature was conducted to identify reported FD in RS patients. FD is present in a large proportion of infants with RS, which indicates the need for early recognition and proper treatment to ensure optimal growth. Growth during the first 2 years of life is significantly lower in RS patients than iCPO patients, which indicates the need for careful attention and long-term follow-up. In the authors' opinion, this study indicates the need for early recognition and proper treatment of FD in RS to ensure optimal growth.

Sharp et al. (2017) conducted a systematic review and meta-analysis to assess models of care for the treatment of children with chronic food refusal receiving intervention at day treatment or inpatient hospital programs. All samples (11 studies involving 593 patients) involved children with complex medical and/or developmental histories who displayed persistent feeding concerns requiring formula supplementation. Tube weaning and behavioral interventions represented the most common treatment modalities. The overall effect size for percentage of patients successfully weaned from tube feeding was 71% (95% CI 54%-83%). Treatment gains endured following discharge, with 80% of patients (95% CI 66%-89%) weaned from tube feeding at last follow-up. The authors concluded that results indicate intensive, multidisciplinary treatment holds benefits for children with severe feeding difficulties. Future research must address key methodological limitations to the extant literature, including improved measurement, more comprehensive case definitions, and standardization/examination of treatment approach.

Brown et al. (2014) conducted a retrospective chart review to evaluate the effectiveness of a multidisciplinary intensive inpatient model for gastrostomy tube (GT) weaning in 30 GT-dependent children, ages 3.9 (±1.4) years. Before admission, patients received 69% (±25) of goal calories by GT and 22% (±19) of goal calories orally. During admission, average caloric intake by mouth as a percentage of goal increased during the course of weeks 1, 2, and 3 (68%, 77%, and 82%, respectively), with a statistically significant increase between weeks 1 and 2 ($P=0.001$) and 1 and 3 ($P=0.011$). At discharge, 90% had discontinued

GT feedings. Average percent weight change during admission was 0.2% (±4). At 1 year follow-up, 83% remained successfully off GT feedings. The authors concluded that children who are GT dependent can be weaned off GT feedings during a 3-week admission using a multidisciplinary feeding model. The therapeutic gains were maintained at 1 year post-discharge.

References

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Guideline History/Revision Information

Date	Summary of Changes
08/01/2020	Template Update • Reformatted policy; transferred content to new template
05/01/2020	Supporting Information • Updated *References* section to reflect the most current information • Archived previous policy version URG-03.04

Instructions for Use

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