

Medications

Acetaminophen (Tylenol) oral liquid as needed every four hours for mild pain or fever over 100.4 F 108.8 mg based on the child's weight

Pharmacological class: Nonsalicyclate (NDH, 2023).

Therapeutic class: Antipyretic / nonopioid analgesic (NDH, 2023).

Key nursing assessments prior to administration: Ensure the dosage is correct based on the child's weight as well as not exceeding the daily limit. "Calculate total daily intake of acetaminophen including other products that may contain acetaminophen so maximum daily dosage is not exceeded" (NDH, 2023, p. 11).

Ibuprofen oral suspension 74 mg based on the child's weight every six hours for mild pain or fever over 100.4 F

Pharmacological class: NSAID (NDH, 2023).

Therapeutic class: Analgesic (NDH, 2023).

Key Nursing assessments: Ensure the dosage is correct based on the child's weight as well as not exceeding the daily limit.

Demographic Data

Admitting diagnosis: Failure to Thrive

Age of client: 18 months

Sex: Male

Weight in kgs: 7.3 kg

Allergies: Dairy

Date of admission: 9/5/2024

Pathophysiology

Disease process: Failure to thrive can be due to by organic or non-organic causes. Non-organic causes include feeding difficulties. This patient appears to be suffering with failure to thrive due to this non-organic cause. Hypogammaglobulinemia and Severe Combined Immunodeficiency Disease are both causes for failure to thrive in infants. "Severe combined immunodeficiency disease (SCID) is a constellation of genetically distinct syndromes, all of which have defects of both antibody-mediated and cell-mediated immune responses... The syndrome is associated with a large number of genetic defects that result in malfunction of the T-cell and B-cell immune systems. Infants usually present with many different kinds of infection during early weeks of life, including diarrheal illness, pneumonia, skin infections, thrush, extensive diaper rashes, and failure to thrive." (Capriotti, 2022, p. 226). It was discovered that the patient has microdeletion of chromosome 1q21.1 which also affects the x chromosome similarly to SCID. This patient was born at thirty-seven weeks and kept in the NICU for several weeks following birth. "Current consensus defines FTT as a weight for age less than the fifth percentile on standardized age-based growth charts, a decrease in weight percentile of more than 2 major percentile lines on the growth chart, or less than the 90th percent of median weight for height/length ratio" (Smith et al., 2022, para. 2). This patient has been hospitalized three times for failure to thrive and has gained weight in the hospital during the previous two stays. Inadequate caloric and nutritional intake can cause failure to thrive. This patient was born at thirty-seven weeks and kept in the NICU for several weeks following birth. Nutrition is vital for development in young children. Without proper nutrition, physical and mental growth is not supported. This patient is not intaking proper nutrients that he needs to develop and is exhibiting delayed development. This child is not using language to communicate, normal development of language indicates a child should use 3-5 words by age one (Rudd & Kocisko, 2023).

S/S of disease: "Poor weight gain of less than the 5th or 3rd percentile for age on graph, vomiting, food refusal, food fixation, abnormal feeding practices, anticipatory gagging, irritability, geight, head circumference, and developmental skills may be affected, chronic physical problems, psychosocial problems in parent-child relationship can lead to nonorganic FTT" (Rudd & Kocisko, 2023, p. 398). This child presents with first percentile weight, vomiting, abnormal food practices, delayed physical development, and delayed cognitive development.

Method of Diagnosis:

Genetic testing: May reveal an underlying cause of failure to thrive as well as diagnosing failure to thrive (Smith et al., 2022).
Metabolic panel: This can reveal if the issue is specific to liver and kidney function for an infant with FTT as well as assess the electrolyte and hydration status as this may be an issue for an infant failing to thrive (Smith et al., 2022).
Height, weight, BMI, head circumference (<7 years), skinfold measurement - Will reveal if the child is delayed in their physical development which is a prominent sign of FTT (Rudd & Kocisko, 2023).
Physical examination noting abnormalities: Will reveal if the child is delayed in their physical development which is a prominent effect of FTT (Rudd & Kocisko, 2023).
Ability to suck, chew, or swallow - Inability to perform these tasks causes lack of nutrition intake, which is vital for an infant to thrive, therefore leading to the diagnosis of FTT due to insufficient caloric intake (Rudd & Kocisko, 2023).
Stool studies for fat, reducing substances, ova and parasites, and culture - May be the cause the infant is not retaining nutrients and failing to thrive (Rudd & Kocisko, 2023).
CBC/ESR - A CBC can assess for anemia, "An erythrocyte sedimentation rate (ESR) can be useful to identify nonspecific underlying inflammation" (Smith et al., 2022).
Twenty-four-hour diet recall for infant, 3 days for older children" (Rudd & Kocisko, 2023, p. 398) - If a child is not provided or unable to intake the proper nutrition and calories, the child will be diagnosed with a failure to thrive.

Treatment of disease:

May need to begin a feeding for the patient to intake nutrients which may need to be monitored for exact caloric count and adverse reactions to the intake such as vomiting or allergic reaction. This patient is allergic to dairy, and this will need to be considered in the type of feeding he is given. Feedings are being managed for this patient. This patient was given a dairy free gastrointestinal tube feeding. An abuse and neglect screening should be evaluated and acted upon for the child's protection if the guardians are withholding food or abusing or neglecting the infant (Rudd & Kocisko, 2023). In this patient's case, the department of child protective services was contacted on his previous hospital visit. With more time, DCF's may be called again. A social work referral may be included in the treatment. Parent education will need to be provided on caring for their infant, likely and more specifically education on feeding their infant. Any immunize conditions resulting from the child's failure to thrive will need to be addressed. No immediate physical injuries or illnesses needed to be treated in this patient apart from failure to thrive. Consultation of a dietitian should be implemented as was for this patient. A dietician and social work referral were ordered by the physician in this case.

Admission History

The mother sought care for her child due to failure to gain weight. The onset of this child's failure to thrive leads back to before his 3/27/24 admission for FTT. These symptoms were being managed via gastrostomy tube to attempt to increase feeding success. The mother stated she ran out of supplies for the feedings and her child has been eating by mouth. The mother also stated her child does not appear to be hungry. The diagnosis affects the child's entire body and can be seen both physically and mentally. Persistent weight loss and lack of verbalizing language are two prominent characteristics seen. The child's galactosemia is likely adding to his failure to thrive. A relieving factor for failure to thrive is feedings and learning activities with the child. Treatments can include monitored feedings to ensure the child is getting the proper nutrition, counting the child's intake of calories, and measuring the child's daily weight. I would consider this case to be severe due to the child weight being 7.3 kg and a normal 18-month-old child's weight to be 8.9 kg - 13.5 kg, 8.9 kg being the third percentile and 13.5 kg the 97th percentile (Apollo Cradle & Children's Hospital, 2024).

Medical History

Previous Medical History: Galactosemia, Microdeletion of chromosome 1q21.1, learning disability

Prior Hospitalizations: 3/27 - FTT (gained 240 g in hospital in 3 days)

4/17 - Seizure like activity, video EEG negative

6/17 - FTT (gained weight in 4 days), DCFS involved

Past Surgical History: Circumcision 12/29/23, Gastrostomy tube and upper endoscopy 5/24, Peg placement 5/1/24

Social needs: Mom may need parenting classes; mom may be an unreliable narrator due to her contradicting statements: The mother stated she ran out of supplies for the g tube feedings and her child has been eating by mouth. The mother also stated her child does not appear to be hungry. DCF's has been called previously. The mother should receive education on the effects of failure to thrive as well as education on feeding her infant.

Relevant Lab Values/Diagnostics

Enteropathogenic E. coli (EPEC) detected

Normal - not detected

Active Orders

- 9/6 - isolation-contact precautions due to enteropathogenic E.coli (EPEC) being detected.
- 9/6 - Calorie count, regular diet apart from dairy allergy due to diagnosis of failure to thrive evidenced by weight loss. Dairy free feeding due to galactosemia.
- 9/5 - Feeding on demand 1.5 kcal through gastrointestinal tube over thirty minutes at 9 a.m., 1 p.m., and 6 p.m. due to failure to thrive evidenced by weight loss.
- 9/6 - Daily weight taken at the same time of day naked for accuracy due to failure to thrive and weight loss.
- 9/5 - Vital signs every 4 hours due to need for monitoring that may alert healthcare staff of negative developments to the patient's health status due to patient's failure to thrive.
- 9/5 - intake/output due to child's weight needing to be precisely monitored due to persistent weight insufficiency
- 9/5 - Full code due to the mother's instructions
- 9/5 - Consult social work due to concerns for the child's wellbeing and mothers need of education
- 9/5 - Consult dietician due to infant's failure to thrive, particularly inadequate weight for the infant's age.

Assessment	
General	Patient is awake, alert and oriented, and content. The child appears to be malnourished likely due to inadequate intake of food. The child appears happy. The child appears to have delayed development. The child does not speak. The child does not walk and balance on his own. These are likely due to his failure to thrive. If a child does not intake proper nutrients, they will struggle to grow mentally and physically.
Integument	Cyanosis and clubbing absent, hair growth is standard with no bald spots, no lesions, rashes, redness, or bruising present. Nails appear normal and groomed.
HEENT	Esotropia (Lazy eye) can be caused by child's genetic disorder, Posterior and anterior fontanel closed, forehead bossing present could be due to the child's genetic disorder, ears appear normal, no lesions, drainage or redness, neck appears normal, unable to assess mouth.
Cardiovascular	No abnormal heart sounds actuated, no murmurs, gallops, rubs. Heart rate was normal.
Respiratory	Unable to assess respiratory rate, no dyspnea noted, no supplemental oxygen needed.
Genitourinary	Within normal limits, no changes noted.
Gastrointestinal	Bowel sounds are active in all four quadrants, patient is having soft, non-bloody stool with no mucus noted. Patient vomited once today. The vomit was thirty minutes after completion of the gastrointestinal tube feeding, the vomit was orange as was the g-tube feeding indicating the contents are due to the patient's feeding contents.
Musculoskeletal	Range of motion appears within normal limits, no changes noted. Infant's walking and balance is delayed for his age, likely due to failure to thrive causing delayed development.
Neurological	No alarming activity, no seizure-like activity since the patient's 4/17 admission. The patient's development is delayed due to inadequate intake of nutrients.
Most recent VS (highlight if abnormal)	<p>Time: 4:05 p.m.</p> <p>Temperature: 98.5 F</p> <p>Route: Axillary</p> <p>RR: Unable to obtain</p> <p>HR: 130</p> <p>BP and MAP: Done once per shift</p>

	<p>Oxygen saturation: unable to obtain</p> <p>Oxygen needs: None</p>
Pain and Pain Scale Used	<p>FLACC</p> <p>Face – The patient’s facial expression consisted of smiling = 0 points</p> <p>Legs – Normal = 0 point</p> <p>Activity – Patient was actively playing at some points the shift and sometimes relaxed and laying with mom. = 0 points</p> <p>Cry – Patient did not cry = 0 points</p> <p>Consolability – Patient did not need to be consoled, appeared content = 0 points</p> <p>Total = 0 points</p> <p>This assessment leads me to believe the child was not in pain during the shift. The child’s mother did not request any pain-relieving measures and nurse did not administer any pain medications that were ordered as needed during the shift. I do not believe the child was in pain during the shift.</p>

Nursing Diagnosis 1 Imbalanced nutrition less than body requirements related to inadequate intake of calories as evidenced by low infant weight (NDH, 2023).	Nursing Diagnosis 2 Impaired parenting related to inattentive to child’s needs evidenced by withholding food from infant (NDH, 2023).	Nursing Diagnosis 3 Deficient knowledge related to emotional disconnection as evidenced by development of preventable disorders (NDH, 2023).
Rationale This nursing diagnosis was chosen because the infant’s weight is an extreme concern and risk to his health and development. Proper nutrition is essential for child development.	Rationale This nursing diagnosis was chosen because the mother displays poor decision making and lack of concern for her infant’s condition. The mother was eating yogurt and the infant came over to her and was signaling he desired food and the mother withheld food from him. This is a poor decision because the infant is in need of nutrition and leads me to believe this was not the first time this has occurred by the annoyed attitude she conveyed about his show of desire. The mother also took a banana from the infant when he made a slight mess attempting to eat it.	Rationale This nursing diagnosis was chosen because the mother displays lack of knowledge as well as unwillingness to learn concerning her infant’s feeding needs. This is evidenced by the infant’s failure to thrive being preventable but is persisting. The mother seems to be in denial of the serious nature of her child’s development. This is her first child which is a reason she may not see the delayed development and failure to obtain a normal weight. She has no other children to compare normal development to.
Interventions Intervention 1: Monitor feedings for exact calorie count. Intervention 2: Obtain daily weight at the same time daily with infant naked for exact weight	Interventions Intervention 1: Refer the mother to parenting classes. Intervention 2: Contact DCFS in concern for the patient’s well-being.	Interventions Intervention 1: Educate the mother on effects of failure to thrive and feeding the infant. Intervention 2: Consult dietitian.

<p>progression.</p>		
<p>Evaluation of Interventions The nurses charting prior to my shift as well as our actions during the shift indicate these interventions are being met. No modifications should be made to these interventions because these actions continue to be in the child's best interest in helping him gain weight and gathering accurate data to monitor his failure to thrive.</p>	<p>Evaluation of Interventions It does not appear that the mother has been referred to parenting classes within this visit. This intervention should be implemented. DCFS was contacted in a previous hospital visit but has not been contacted within this stay. I believe this intervention should be implemented.</p>	<p>Evaluation of Interventions The mother has received some education on feedings and how failure to thrive can negatively affect her infant. Further education should be implemented. A consultation of dietitian has been ordered by the physician.</p>

		What do you expect?	What did you observe?
Erickson’s Psychosocial Developmental Stage		Autonomy vs. Shame and doubt	Autonomy vs. Shame and Doubt
Piaget’s Cognitive Developmental Stage		Sensorimotor stage 6: Inventions of new means/mental combinations	Sensorimotor stage 5: Tertiary Circular
Age-Appropriate Growth & Development Milestones	<ol style="list-style-type: none"> 1. Walk independently by 15 months old (Rudd & Kocisko, 2023). 2. “Saying 50 words by 18 months” (Rudd & Kocisko, 2023, p. 173). 3. “Pointing to objects when named by others” (Rudd & Kocisko, 2023, p. 173). 		
Age-Appropriate Diversional Activities	<ol style="list-style-type: none"> 1. Providing favorite object such as a stuffed animal. 2. Watching their favorite cartoon. 3. Stacking blocks 		

References (3):

2023 Nurse's Drug Handbook. (2023). . Jones & Bartlett Learning

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