N433 Care Plan # 1

Lakeview College of Nursing

Name

Shivani Patel

Demographics (3 points)

Date of Admission 7/27/22	**Client Initials** M.E.N.	**Age (in years & months)** 13 months	**Gender** Male
Code Status Full code	**Weight (in kg)** 8.9 kg	**BMI** 18.9	**Allergies/Sensitivities (include reactions)** Aspirin, chloroquine, ciprofloxacin, fava bean, methylene blue, moth balls, nitrofurantoin, quinolones, sulfamethoxazole-trimethoprim, sulfonylureas (The patient does not have any reactions due to their G6PD deficiency)

Medical History (5 Points)

Past Medical History:

Illnesses: Bilateral recurrent inguinal hernia, broncho-pulmonary dysplasia, pseudomonas aeruginosa infection, tracheostomy dependent, gastrostomy tube dependent, prematurity, retinopathy of prematurity of both eyes, G6PD deficiency, COVID-19 infection, developmental delay, liver dysfunction, anemia, osteopenia or prematurity, ventilator dependent, intestinal perforation and bowel obstruction, portal vein thrombosis

Hospitalizations: The patient was hospitalized on 7/27/22 and 9/16/21 due to respiratory failure from extreme prematurity

Past Surgical History: Tracheostomy, bronchoscopy, laparotomy, laser surgery

Immunizations: Up to date

Birth History: The infant was born on 9/16/22 via vaginal birth. The G4P2 mother had ruptured membranes. The infant was born at 22 weeks and 2 days. He was intubated with 2.5 ETT and was then transferred to the NICU. His birth weight was 405 grams with an extensive medical history. The patient was placed on a ventilator and transferred to the Laurie Children's Hospital in Chicago for continued medical care.

Complications (if any): The mother had a rupture of membranes. Following birth, the patient was apneic, cyanotic, bradycardic

Assistive Devices: Infant wheelchair

Living Situation: The patient got transported from the Laurie Children's Hospital in Chicago. He will then go home with his mother and 2 siblings once his condition improves and gets removed off the trach.

Admission Assessment

Chief Complaint (2 points): Chronic respiratory failure

Other Co-Existing Conditions (if any):

Pertinent Events during this admission/hospitalization (1 points): The patient has a trach on, is ventilator dependent, and g-tube dependent. There was a total of 1 IV attempt performed on the patient. The patient was transferred from the Laurie Children's Hospital in Chicago.

History of present Illness (OLD CARTS) (10 points): Mark is a 10-month-old in the PICU who is an extreme preterm of 22 weeks. The patient got transferred from the Laurie Children's Hospital in Chicago. The patient is experiencing chronic respiratory failure and shortness of breath. The symptoms began on 7/27/22 and is located on his chest. The symptoms are ongoing, and the patient is trach dependent. The patient was not verbally able to describe how the

symptoms felt, but the patient appeared to be in visible distress. The symptoms did not radiate anywhere else in the body, and has no associating factors. Moving around too much or getting up constantly made the symptoms worse. Proper resting made the symptoms improve. The patient experienced shortness of breath continuously. The patient did not get any medications for his symptoms, but he has a trach, ventilator, and g-tube in place. Using the FLACC score, the patient is currently in no visible distress or pain.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Chronic respiratory failure with hypoxia

Secondary Diagnosis (if applicable): Chronic lung disease

Pathophysiology of the Disease, APA format (20 points):

Chronic respiratory failure occurs when the airways that carry air to the lungs become narrow and damaged. Chronic respiratory failure limits air movement through the body which means that less oxygen gets in and less carbon dioxide gets out of the body. When carbon dioxide does not get properly removed from the bloodstream, it can lead to the buildup of carbonic acid (Shi et al., 2020). The excess acid can cause problems in the brain and heart (Capriotti, 2020). It can also be classified as hypoxemic or hypercapnic respiratory failure. The symptoms include shortness of breath, coughing up mucous, wheezing, cyanosis, rapid breathing, fatigue, and anxiety (Shi et al., 2020). The patient's vital signs will not be as stable. For instance, the patient's oxygen level may go down and their respiratory rate can increase. Lab findings consistent with chronic respiratory failure are elevated bicarbonate, oxygen, phosphate, magnesium, and hemoglobin levels (Capriotti, 2020). Diagnostic testing used to identify the disease are ABGs,

bronchoscopy, and chest x-ray. Arterial blood gas tests help to measure levels of oxygen, carbon dioxide, pH, and bicarbonate. Some treatment options for chronic respiratory failure include oxygen therapy, tracheostomy, and mechanical ventilation. Complications of chronic respiratory failure include heart failure and pulmonary embolism. Symptoms of heart failure include shortness of breath, fatigue, weakness, rapid or irregular heartbeat, persistent cough, and nausea (Capriotti, 2020). Nursing interventions for heart failure include relieving fluid overload symptoms, promoting physical activity, and assess vital signs/ cardiac rhythms. Moreover, the symptoms of pulmonary embolism are shortness of breath, chest pain, and coughing. Preventative nursing actions for pulmonary embolism include preventing venous stasis, monitoring thrombolytic therapy, managing pain, and managing oxygen therapy.

Pathophysiology References (2) (APA):

Capriotti, T. & Frizzell, J.P. (2020). *Pathophysiology: Introductory concepts and clinical perspectives.* (2nd ed.). F.A. Davis Company.

Shi, J., Al-Shamli, N., Chiang, J., & Amin, R. (2020). Management of rare causes of pediatric chronic respiratory failure. *Sleep Medicine Clinics*, *15*(4), 511-526.

Active Orders (2 points)

Order(s)	Comments/Results/Completion
Activity: Increase activity as tolerated	The patient is required to participate in activity as tolerated. He has a fixed scheduled, where he has time to play throughout the day. The patient is doing well with tolerating activity. The patient moves around in bed frequently without getting short of breath.
Diet/Nutrition: Bolus feeding and feeding with formula	The patient has a G-tube in place where he receives bolus feeds. The patient is scheduled to receive 200mL of bolus feedings every 4 hours. He is given 5 bolus feeds the entire day. Along with that, the patient is bottle-fed with formula. Today, the patient's total intake was 240 mL from bottle-feeding.
Frequent Assessments: Q4 vital signs and **Q1 respiratory assessment**	The patient needs to get his vitals checked every 4 hours. A respiratory assessment is also done on the patient every 1 hour. Monitoring the patient's vital signs is important because it helps to assess for changes in their oxygen and respiratory levels. Checking the patient's temperature and pulse helps to assess for signs of infection. Assessing the patient's respiratory status is important since he has a trach and is on a ventilator. Changes in the patient's respiratory status can put the patient at risk for respiratory failure, so it is important to monitor the respiratory levels every hour. Currently, the patient's vital signs are within normal limits.
Labs/Diagnostic Tests: Chest x-ray	The patient is scheduled for another chest x-ray. The chest x-ray helps to look at any problems with the lungs. The results will be pending.
Treatments: Neb treatments	The patient is currently on neb treatments. The neb treatment helps to control breathing problems like wheezing and helps loosen up lung secretions. Currently, the patient is tolerating treatment.

Other: Trach care and G-tube care	Trach care and G-tube care is performed on the patient once daily. The patient becomes a little restless during care but does well overall.
New Order(s) for Clinical Day	
Order(s)	**Comments/Results/Completion**
RT, OT, ST	RT, OT, and ST will continue to meet up with the patient more frequently. The goal is to get the patient off the trach and get him to be more physically stable before discharge. Respiratory therapy will work on getting the patient off the ventilator by performing trials throughout the day. Trials will be performed at 0800 and 1600 for 35 minutes, adding 5 minutes each.

Laboratory Data (15 points)

CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range (specific to the age of the child)	Admission or Prior Value	Today's Value	Reason for Abnormal Value
RBC	4.03-5.07	4.96	N/A	
Hgb	10.1-12.5	13.4	N/A	There are low levels of oxygen in the blood. This is caused by chronic respiratory failure (Pagana et al., 2019).
Hct	30.8-37.8	41.9	N/A	High levels or hematocrit are caused when the body makes too many red blood cells. This can happen when the patient becomes dehydrated (Pagana et al., 2019).
Platelets	206-445	145	N/A	Low platelet levels indicate thrombocytopenia. It can be caused by

				an immune system problem. Since the infant was born preterm, their immune system may not have developed fully (Pagana et al., 2019).
WBC	5.98-13.51	11.17	N/A	
Neutrophils	1.54-7.04	N/A	N/A	
Lymphocytes	1.0-4.8	N/A	N/A	
Monocytes	2-8	8.5	N/A	High monocyte levels are linked to a chronic infection or disease that the body is fighting. The high level of monocytes results from the chronic respiratory failure and lung disease (Pagana et al., 2019).
Eosinophils	2-4	2.1	N/A	
Basophils	0-1	0.3	N/A	
Bands	0-10%	N/A	N/A	

Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission or Prior Value	Today's Value	Reason For Abnormal
Na-	136-145	142	N/A	
K+	3.5-5.1	4.4	N/A	
Cl-	98-107	110	N/A	A high chloride level can indicate dehydration (Pagana et al., 2019).
Glucose	74-100	76	N/A	
BUN	5-17	12	N/A	
Creatinine	0.55-1.30	0.43	N/A	Low levels of creatinine can indicate dehydration and liver disease. The patient was diagnosed with liver dysfunction (Pagana et al., 2019).

Albumin	3.8-5.4	4.1	N/A	
Total Protein	5.1-7.3	6.7	N/A	
Calcium	9.0-11.0	10.9	N/A	
Bilirubin	0.2-1.2	0.3	N/A	
Alk Phos	9-500	280	N/A	
AST	5-34	32	N/A	
ALT	0-55	32	N/A	
Amylase	19-76	N/A	N/A	
Lipase	7-59	N/A	N/A	

Other Tests Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Admission or Prior Value	Today's Value	Reason for Abnormal
ESR	3-15	N/A	N/A	
CRP	0-0.29	N/A	N/A	
Hgb A1c	<7.5	N/A	N/A	
TSH	0.45-4.5	N/A	N/A	

Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Admission or Prior Value	Today's Value	Reason for Abnormal
Color & Clarity	Yellow and clear	N/A	N/A	

pH	4.5-8	N/A	N/A	
Specific Gravity	1.005-1.03	N/A	N/A	
Glucose	Negative	N/A	N/A	
Protein	Negative	N/A	N/A	
Ketones	Negative	N/A	N/A	
WBC	<5 hpf	N/A	N/A	
RBC	<5 hpf	N/A	N/A	
Leukoesterase	Negative	N/A	N/A	

Cultures Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Admission or Prior Value	Today's Value	Explanation of Findings
Urine Culture	Negative	N/A	N/A	
Blood Culture	Negative	Negative	N/A	
Sputum Culture	Negative	Positive	N/A	The sputum culture found gram – bacilli and gram + bacilli. This indicates respiratory infection (Pagana et al., 2019).
Stool Culture	Negative	N/A	N/A	
Respiratory ID Panel	Negative	Positive	N/A	Upon admission, the patient was positive for rhinovirus and enterovirus
COVID-19 Screen	Negative	Positive	N/A	The patient was tested positive for COVID-19 after admission

Lab Correlations Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana T. N. (2019). *Mosby's diagnostic and laboratory desk reference* (14th ed.). Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): An x-ray of the chest and abdomen was performed on the patient. A chest x-ray detects cancer, infection, or the accumulation of air collecting in the space around the lungs. An x-ray of the abdomen helps to detect kidney stones, obstruction, perforation in the intestines, or a mass such as a tumor.

Diagnostic Test Correlation (5 points): Per the physician's report, the lungs are well-expanded. There is no focal consolidation, pleural effusion, or pneumothorax. The heart size and mediastinal contours are normal. The abdominal bowel gas pattern is nonobstructive. There is no evidence of free interpersonal air. There is no evidence of pneumatosis on portal venous gas.

Diagnostic Test Reference (1) (APA):

Çalli, E., Sogancioglu, E., van Ginneken, B., van Leeuwen, K. G., & Murphy, K. (2021). Deep learning for chest X-ray analysis: A survey. *Medical Image Analysis*, *72*(1), 102125.

Current Medications (8 points)
****Complete *ALL* of your Client's medications****

Brand/ Generic	Acetaminophen/ Tylenol	Albuterol sulfate/AccuNeb	Budesonide/ Pulmicort	Famotidine/ Pepcid	Ipratropium/ Atrovent
Dose	128 mg	2.5 mg	0.5 mg	4.24 mg	250 mcg
Frequency	Every 4 hrs. PRN	Every 4 hrs. PRN	BID	Once daily	BID
Route	Oral	Inhalation	Inhalation	Oral	Inhalation
Classification	Pharmacologic class: Nonsalicylate, para-aminophenol derivative Therapeutic class: Antipyretic, nonopioid analgesic	Pharmacologic class: Adrenergic Therapeutic class: Bronchodilator	Pharmacologic class: Corticosteroid Therapeutic class: Antiasthmatic, anti-inflammatory	Pharmacologic class: Histamine-2 blocker Therapeutic class: Antiulcer agent	Pharmacologic class: Anticholinergic Therapeutic class: Bronchodilator
Mechanism of Action	It inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system. Acetaminophen also acts directly on temperature-regulating center in the hypothalamus.	Albuterol attaches to beta 2 receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to convert adenosine triphosphate (ATP) to cyclic adenosine monophos	It inhibits inflammatory cells and mediators, possibly by decreasing influx into nasal passages, bronchial walls, or the intestines. As a result, nasal or airway inflammation decreases	Famotidine, an H2-receptor antagonist, reduces HCl formation by preventing histamine from binding with H2 receptors	Ipratropium helps prevents it from attaching to muscarinic receptors on membranes of smooth-muscle cells, as shown at right. By blocking acetylcholine's effects in bronchi and bronchioles, ipratropium relaxes smooth muscles and causes bronchodilatio

		phate (cAMP). This reaction decreases intracellular calcium levels. It also increases intracellular levels of cAMP, as shown. Together, these effects bronchial smooth muscle cells and inhibit histamine release			n
Reason Client Taking	Relieves mild to moderate pain	Prevents exercise-induced bronchospasms	Helps alleviate symptoms of shortness of breath	Treats heartburn	Helps alleviate symptoms of shortness of breath
Concentration Available	This medication is available in 325 mg tablets	2.5 mg/3 mL	0.5 mg/2 mL	20 mg/2 mL	500 mcg/2 mL
Safe Dose Range Calculation	325mg-540mg/dose	1.25-2.5mg/dose	0.5-1mg/dose	0.5-20mg/dose	200-500mcg/dose
Maximum 24-hour Dose	400 mg	7.5 mg	1 mg	40 mg	500 mcg
Contraindications (2)	-Hypersensitivity to acetaminophen or its components -Severe hepatic impairment	-Hypersensitivity to albuterol or its components -	-Hypersensitivity to budesonide or its components -Status asthmaticus or other acute	-Hypersensitivity to famotidine -Hypersensitivity to H2-receptor	-Hypersensitivity to atropine -Hypersensitivity to ipratropium bromide, or

		Contraindicated for patients with hyperthyroidism	asthma episodes	antagonists, or their components	their components
Side Effects/Adverse Reactions (2)	-Hypotension -Fatigue	-Anxiety -Pharyngitis	-Hypertension -Diarrhea	-Abdominal pain -Bronchospasm	-Dizziness -Bradycardia
Nursing Considerations (2)	- Use acetaminophen cautiously in patients with hepatic impairment or active hepatic disease, alcoholism, chronic malnutrition, severe hypovolemia, or severe renal impairment - Monitor renal function in patient on long-term therapy. Keep in mind that blood or albumin in urine may indicate nephritis	- Administer pressurized inhalations of albuterol during the second half of inspiration, when airways are open wider and aerosol distribution is more effective -Be aware that drug tolerance can develop with prolonged use.	-Use budesonide cautiously if patient has ocular herpes simplex; tubercular infection; or untreated fungal, bacterial, or systemic viral infection -Closely monitor a child's growth pattern; budesonide may stunt growth	-Shake famotidine oral suspension vigorously for 5 to 10 seconds before administration -Know that adult patients who have a suboptimal response or an early symptomatic relapse after completing therapy, should be evaluated for gastric malignancy	-Use ipratropium cautiously in patients with angle-closure glaucoma, benign prostatic hyperplasia, bladder neck obstruction, in patients with hepatic or renal dysfunction -When using a nebulizer, apply a mouthpiece to prevent drug from leaking out around mask and causing blurred vision or eye pain
Client Teaching needs (2)	- Instruct that tablets may be crushed or swallowed whole - Inform that	-Advise to wait at least 1 minute between inhalations	-Caution not to use an oral inhaler with a spacer device -Advise to rinse mouth	-Instruct to carefully chew chewable tablets thoroughly	-Caution not to use ipratropium to treat acute bronchospasm -Inform that

	acetaminophen may cause reduced fertility in both females and males	if dosage requires more than one inhalation -Report signs and symptoms of allergic reaction, such as difficulty swallowing, itching, and rash	with water after each orally inhaled dose and to spit the water out. Instruct to contact prescriber if they develop a mouth or throat infection	before swallowing -Instruct that who also takes antacids to wait 30 to 60 minutes after taking famotidine, if possible, before taking antacid	although some people feel relief within 24 hours of drug use, maximum effect may take up to 2 weeks

Medication Reference (1) (APA):

Jones & Bartlett Learning, (2021). *2021 Nurse's drug handbook* (20th ed.). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points) Highlight Abnormal Pertinent Assessment Findings

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient is not alert and oriented x4. He is oriented to self and caregiver. No visible distress. Pt dressed in clean clothes. Pt's skin, hair, nails clean and well maintained
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:** **IV Assessment (If applicable to child):** **Size of IV:** **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:** **IV Fluid Rate or Saline Lock:**	Skin color: Brown Character: Skin is warm and dry upon palpation Temperature: Taken axillary and was 98.1F Turgor: Skin has normal turgor Small bump behind the patient's right ear No rashes, bruises, or wounds Normal quantity, distribution, and texture of hair Braden score: 6 There are no drains present The patient does not have an IV
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:** **Thyroid:**	Head/Neck: Head and neck are symmetrical. Normocephalic and atraumatic. No cervical lymphadenopathy, normal range of motion, no rigidity Ears: Left/right external ear normal Eyes: No visible drainage from eyes, the bilateral sclera is white, the bilateral conjunctiva is pink. Extraocular movements: Extraocular movements are not intact Nystagmus in both eyes Conjunctiva/sclera: Conjunctiva/sclera are normal Pupils: Pupils are equal, round, and are reactive to light Nose: Septum is midline and no visible bleeding from nose Teeth: Notices plaque and tartar. Teeth are yellow and aligned with gums. The mucous

	membrane is pink and moist Thyroid: No enlarged or displaced thyroid is noted
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	Normal heart rate and rhythm. Clear S1 and S2 without any murmurs Peripheral pulses: 3+ Capillary refill: 2 seconds No edema or neck vein distention
RESPIRATORY: **Accessory muscle use: Y☒ N ☐** **Breath Sounds: Location, character**	Accessory muscle use Breath sounds: Normal breath sounds. Equal and clear bilaterally Assisted on a mechanical ventilator and trach The lung sounds are clear to auscultation bilaterally Effort: Pulmonary effort is normal. There is no respiratory distress Regular depth and pattern; unlabored breathing; expansion symmetrical; no retractions Patient has a productive cough No crackles or wheezing
GASTROINTESTINAL: **Diet at home:** **Current diet:** **Height (in cm):** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☒ N ☐** **Type:**	Diet at home: Unknown Current diet: bottle-feeding with formula and tube feeding Height: 69 cm Weight: 8.9 kg Bowel sounds: normoactive Last BM: 10/28/22 Upon palpation there is no pain and no abdominal mass present. The abdomen is soft Tenderness: There is abdominal tenderness. There is no guarding or rebound Distention: none Incisions: There is a surgical incision mark on the lower abdomen. Scars: Scar on the lower abdomen below the incision Drains: none Wounds: none No ostomy or nasogastric tubes The patient has a feeding tube- G tube
GENITOURINARY: **Color:**	Clear yellow The urine output was 218 mL

Character: **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	No pain with urination No dialysis Genitals appear to be normal No catheter
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☐ N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk ☐**	Neurovascular status: normal No swelling. Normal range of motion Cervical back: normal range of motion Strength: Patient noticeably strong Supportive devices: patient has a wheelchair ADL assistance: bathing and feeding Fall risk: no Fall risk score: 2 Mobility status: Patient needs assistance. The patient is not independent. Does need assistance with equipment. Does need assistance when standing or walking.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	MAEW: yes Strength is equal in all extremities. Patient is not alert and oriented x4. The patient is oriented to self and caregiver Orientation, mental status, speech, sensory are not all within normal limits due to developmental delay Cranial nerves grossly intact PERRLA: yes, normal pupil accommodation
PSYCHOSOCIAL/CULTURAL: **Coping method(s) of caregiver(s):** **Social needs (transportation, food, medication assistance, home equipment/care):** **Personal/Family Data (Think about home environment, family structure, and available family support):**	The patient enjoys playing and watching TV. He has been using this as a coping mechanism and distraction from the hospital environment. The patient is on a mechanical ventilator, trach, and feeding tube. He needs to be closely monitored due to this. The patient will need to be off this to be discharged to go home. The mother is involved in the patient's care. She came to meet the patient in the afternoon. She helped assist the patient with bathing, feeding, and trach care. He has 2 older siblings and are supportive in this care. He will be discharged home with this mother and siblings.

Vital Signs, 2 sets – (2.5 points) Highlight All Abnormal Vital Signs

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
8:55	140	102/56	28	97.7F (Axillary)	100%
4:22	125	107/64	28	98.1F (Axillary)	100%

Vital Sign Trends: The patient's vital signs remain fairly stable. The patient's pulse rate was high. The pulse rate decreased when the second set of vitals were checked.

Normal Vital Sign Ranges (2.5 points)
****Need to be specific to the age of the child****

Pulse Rate	70-120 bpm
Blood Pressure	80/34-114/66
Respiratory Rate	20-30 bpm
Temperature	99.9F
Oxygen Saturation	95-100%

(Holman et al., 2019)

Normal Vital Sign Range Reference (1) (APA):

Holman, H.C., Williams, D., Sommer, S., Johnson, J., Wheless, L., Wilford, K., & McMichael, M.G. (2019). *RN nursing care of children review module* (11th ed.). Assessment Technologies Institute, LLC.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
8:55	FLACC	No pain	0/10	No pain	No pharmacological intervention. Playing serves as a potential distraction for the patient's pain
Evaluation of pain status *after* intervention	FLACC	No pain	0/10	No pain	No pharmacological intervention. Patient was playing
Precipitating factors: Patient was not in pain. No precipitating factors were noted Physiological/behavioral signs: Patient showed no psychological or behavioral signs of pain					

Intake and Output (1 points)

Intake (in mL)	Output (in mL)
Bottle-feeding with formula- 240 mL	**218 mL-urine**

Developmental Assessment (6 points)
Be sure to highlight the achievements of any milestone if noted in your child. Be sure to highlight any use of diversional activity if utilized during clinical. There should be a minimum of 3 descriptors under each heading

Age Appropriate Growth & Development Milestones

1. Drinks from a cup and uses other objects correctly
2. Can follow simple directions and can let go of objects without help
3. Looks for things he sees you hide, like a toy under the blanket

Age Appropriate Diversional Activities

1. Playing with blocks
2. Listening to music

3. Play with a ball

Psychosocial Development:

Which of Erikson's stages does this child fit? The infant fits in the trust versus mistrust stage

What behaviors would you expect? Infants are entirely dependent on their caregivers. Early patterns of trust help them build a strong base of trust important for social and emotional development. If they develop trust, they will feel safe and secure. The infant either views other people or himself as trustworthy or develops a distrust in their environment.

What did you observe? The infant was very trusting of the caregivers around him. If he saw a new person, he played with them instead of crying or getting scared. He was comfortable with new people being around him.

Cognitive Development:

Which stage does this child fit, using Piaget as a reference? The infant fits into the sensorimotor stage

What behaviors would you expect? The stage is marked by child discovering the difference between themselves and their environment. They use their senses to interact with the environment. They will touch things, lick them, bang them together, and put them in their mouth.

What did you observe? When playing with toys, the patient would put the touch the touch, lick them, bang them together, and put them in his mouth. He had multiple toys laid out in front of them, and he would drop one toy to grab another.

Vocalization/Vocabulary:

Development expected for child's age and any concerns? Most infants say their first word around 12 to 18 months. The patient is not able to talk yet and this is expected for a child this age.

Any concerns regarding growth and development? The patient has a developmental delay due to being extreme preterm. He will most likely develop certain motor and cognitive skills later during the developmental stages.

Developmental Assessment Reference (1) (APA):

Ricci, S.S., Carman, S., & Kyle, T. (2021). *Maternity and pediatric nursing* (3rd ed.). Wolters Kluwer.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client.	**Rational** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcomes**	**Evaluation** • How did the Client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Ineffective breathing pattern	The patient was diagnosed with chronic	1. Assess the patient's respiratory	1. Continue to keep the patient on a	The mother was very understanding of the process. The

related to chronic respiratory failure as evidenced by tracheostomy dependence	respiratory failure. Due to ineffective breathing patterns, he was placed on a trach and mechanical ventilator	status every hour, and adjust the mechanical ventilator accordingly to meet the patient's demands 2.Check the patient's vital signs every 4 hours to assess for any changes in oxygen and respiratory rate	trach and mechanical ventilator. If the respiratory therapist notices any changes in the patient's vital signs, the provider will be informed. As the patient's condition starts to stabilize, they will slowly be taken off the trach and be prepared for discharge.	healthcare professionals were aware they needed to closely monitor the patient's vital signs at a timely manner. The family is given daily reports on the patient regarding any changes.
2. Deficient fluid volume related to dehydration as evidenced by a chloride level of 110	High chloride levels can indicate dehydration. The patient's high chloride level indicated that they are at risk for dehydration.	1. Slowly try to increase the patient's intake 2. Correctly monitor the patient's intake and output throughout the day	1.The patient will continue to receive tube feeding and the nurses will make sure he is bottle-fed in a timely manner. Monitoring the patient's intake and output will help to assess fluid volume deficit.	The mother was aware that she will need to bottle-feed the infant as often as possible. The patient has a G-tube in place and has scheduled times to receive feeding. The nurses are aware that they will need to monitor the patient for signs of dehydration and draw important labs.
3. Delayed growth and development related to extreme	The patient was born at 22 weeks and 2 days. The patient was	1. A fixed schedule will be provided to help assist with accomplishing	1.The healthcare team will work together to	The mother was aware of the important tasks needed to be completed by the

preterm as evidenced by a gestation of 22 weeks	then transported to the NICU with many complications. Due to being preterm, the patient may face developmental delays	activities in a timely manner important for growth and development 2. Continue to assess the patient's developmental levels at reasonable intervals	help the patient accomplish certain tasks. The goal is to help improve deficiencies in growth and development. The weaker points will be specifically targeted.	patient throughout time. She was also aware that she needs to visit the pediatrician frequently so the provider can assess for any growth or improvements.
4. Activity intolerance related to fatigue as evidenced by liver dysfunction	The patient was diagnosed with liver dysfunction, and this can cause the patient to experience fatigue	1. Assess the patient's nutritional ingestion for efficient energy sources and metabolic demand 2. Encourage the patient to increase physical activity and get rest at appropriate times	1.It is important to increase the patient's intake if they are feeling nauseas. This will help to increase the patient's energy levels. Increasing physical activity and promoting rest helps to strengthen the body and increase their ability to tolerate activities. The patient will be required to follow their daily schedule which	The mother is aware of the patient's schedule and is encouraged to increase the patient's physical activity as tolerated. The healthcare team is also aware of the set times the patient needs to take naps throughout the day.

			includes play and rest times.	

Other References (APA):

Phelps, L. L. (2020). *Sparks & Taylor's nursing diagnosis reference manual*. Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

Though assessment, the patient's pain level was a 0 based on the FLACC score. The patient did not experience any visible distress or signs of pain. The patient was experiencing shortness of breath upon admission.

Objective Data

The patient's vital signs are fairly stable.
Pulse: 125
BP: 107/64
RR: 28
Temp: 98.1F
Oxygen: 100%

Abnormal labs:
Hgb-13.4, hct-41.9, platelets-145, monocytes-8.5, chloride-110, creatinine-0.43

Client Information

M.E.N. is a 13-month-old African American male that presented to the hospital with chronic respiratory failure. He has a history of extreme preterm birth of 22 weeks and many other complications like chronic lung disease. He has a history of multiple surgeries including bronchoscopy and tracheostomy. He is several allergies and is on full code.

Nursing Diagnosis/Outcomes

1. Ineffective breathing pattern related to chronic respiratory failure as evidenced by tracheostomy dependence

- Continue to keep the patient on a trach and mechanical ventilator. If the respiratory therapist notices any changes in the patient's vital signs, the provider will be informed. As the patient's condition starts to stabilize, they will slowly be taken off the trach and be prepared for discharge.

1. 2. Deficient fluid volume related to dehydration as evidenced by a chloride level of 110

-The patient will continue to receive tube feeding and the nurses will make sure he is bottle-fed in a timely manner. Monitoring the patient's intake and output will help to assess fluid volume deficit.

3. Delayed growth and development related to extreme preterm as evidenced by a gestation of 22 weeks

-The healthcare team will work together to help the patient accomplish certain tasks. The goal is to help improve deficiencies in growth and development. The weaker points will be specifically targeted.

4. Activity intolerance related to fatigue as evidenced by liver dysfunction

-It is important to increase the patient's intake if they are feeling nauseas. This will help to increase the patient's energy levels. Increasing physical activity and promoting rest helps to strengthen the body and increase their ability to tolerate activities. The patient will be required to follow their daily schedule which includes play and rest times.

Nursing Interventions

1. Assess the patient's respiratory status every hour, and adjust the mechanical ventilator accordingly to meet the patient's demands
2.Check the patient's vital signs every 4 hours to assess for any changes in oxygen and respiratory rate
1. Slowly try to increase the patient's intake
2. Correctly monitor the patient's intake and output throughout the day
1. A fixed schedule will be provided to help assist with accomplishing activities in a timely manner important for growth and development
2. Continue to assess the patient's developmental levels at reasonable intervals
1. Assess the patient's nutritional ingestion for efficient energy sources and metabolic demand
2. Encourage the patient to increase physical activity and get rest at appropriate times