Demographic Data

Admitting diagnosis: Acute hypoxic respiratory failure d/t RSV

Age of client: 18 weeks old

Sex: Male

Weight in kgs: 4 kg (8 lb. and 13.1 oz.)

Allergies: No known allergies

Date of admission: 10/18/25

Medications

- 0.9% NaCl
  - Pharmacologic: N/A/Therapeutic: N/A
  - The patient is on fluids for hydration and helps keep the IV patent.
  - Before giving IV fluids, such as normal saline, the nurse should assess the patient's lungs through auscultation to make sure the patient is not in fluid overload.
- Acetaminophen oral or suppository
  - Pharmacologic: nonsalicylate/Therapeutic: antipyretic (Skidmore-Roth, 2016)
  - The patient is taking the medication for pain and fever (Skidmore-Roth, 2016).
  - Before giving the medication, the nurse needs to check the temperature if giving it for a fever; if giving it for pain, the nurse needs to do a pain assessment, which is the FLACC scale. Also, checking how much they have had in the last twenty-four hours (Skidmore-Roth, 2016).
- Albuterol inhaler
  - Pharmacologic: Beta-Adrenergic/Therapeutic: bronchodilator (Skidmore-Roth, 2016)
  - The patient is taking this medication for acute bronchospasms (Skidmore-Roth, 2016).
  - Before giving the medication, assess the last time the patient received the albuterol, as this medication is given every four hours. Also, assess the breath sounds before administering the medication (Skidmore-Roth, 2016).
- Chlorothiazide
  - Pharmacologic: thiazide diuretic/Therapeutic: antihypertensive, diuretic (Multum, 2025)
  - Patient take this medication for his increased blood pressure due to his heart and lung issues (Multum, 2025).
  - Before giving this medication, the nurse needs to assess his lung sounds, his heart rate, and his blood pressure (Multum, 2025).
- D10- 0.9% NaCl

  - Pharmacologic: N/A/Therapeutic: N/A
  - This medication is given to help hydrate and serve as a way for the patient to get glucose (Mayo Clinic, 2025).
  - Before administering this medication, the nurse needs to assess the patient blood glucose level, as giving this saline will only increase it (Mayo Clinic, 2025).
- D10W bolus
  - Pharmacologic: N/A/Therapeutic: N/A
  - This medication bolus is given to serve as a way for the patient to get glucose (Mayo Clinic, 2025).
  - Before administering this medication, the nurse needs to assess the patient blood glucose level, as giving this bolus will only increase it (Mayo Clinic, 2025).
- Diazoxide
  - Pharmacologic: Benzothiadiazide derivative/Therapeutic: Antihypoglycemic (Jones and Bartlett Learning, 2024)
  - The patient takes this medication to manage and treat his hypoglycemia caused by hyperinsulinism (Jones and Bartlett Learning, 2024).
  - Before giving this medication, the patients blood sugar needs taken.
- Famotidine
  - Pharmacologic: H2-histamine receptor antagonist/Therapeutic: Antacid (Skidmore-Roth, 2016)
  - The medication is given for his gastroesophageal reflux disease. It can also be given for prevention of aspiration pneumonia, which he has gotten before (Skidmore-Roth, 2016).
  - Assess when the medication was last given, as it needs to be given at the same time every day. Assess water and fluid intake, as this medication can cause constipation (Skidmore-Roth, 2016).
- Glycerin Microenema
  - Pharmacologic: hyperosmotic laxative/Therapeutic: laxative
  - This medication is used to treat constipation (Drugs.com, 2024).
  - Before giving this medication, the nurse needs to assess the last time the patient had a bowel movement. Also, assess if the patient is having loose stools, such as diarrhea, as this medication should not be given (Drugs.com, 2024).
- -Simethicone
  - Pharmacologic: N/A/Therapeutic: antiflatulent (Skidmore-Roth, 2016)
  - This medication is given for gas (Skidmore-Roth, 2016).
  - Assess bowel sounds. Assess the last time the medication was given, as patient this age cannot receive more than 80 milligrams in twenty-four hours (Skidmore-Roth, 2016).

Admission History

Patient came in on the 17th due to nasal congestion and decrease in oral intake/feeding. This had started a few days earlier. He tested positive for RSV. They were discharged from the ER with instructions to come back if symptoms got worse. On the 18th, patient returned with increased respiratory work and distress. He had tachycardia, tachypnea, and retractions. Nothing was able to relieve his signs and symptoms. Crying worsened his condition. They were then admitted to the PICU.

Relevant Lab Values/Diagnostics

Diagnostics

- CT chest without contrast
  - Diagnostic test showed consolidation in the upper and lower lobes on both sides. There were nodules seen. The enteric tube goes to the stomach.
- Chest X-Ray
  - Diagnostic test shows consolidations in the left upper lung, right central, and lower lung.
- KUB X-Ray
  - This diagnostic test was done four different times to check placement of the enteric tube. One result showed the tube was looped back up into the middle of the esophagus. Another image showed tip was over the stomach of the fundus.
- Overall, with the multiple chest X-Rays and CT, it showed the same results of pneumonia in his lungs, which is a secondary cause due to RSV and continuous aspirations.

Labs

- 10/17: Tested positive for RSV (normal is negative) -> This relates as this explains why he was sick and developed respiratory failure.
- 10/18: Glucose was 131 mg/dL (40-90 mg/dL) -> His glucose was high because they are frequently giving him boluses of glucose for his hyperinsulinism (Pagana et al., 2023).; Glucose has been tested numerous times throughout admission. Most of the time, he was considered high, as his values were over 100. However, he did have low sugars too. The trend has been increasing and decreasing, with no steady medium. AST was 207 u/L (15-60 u/L) -> the patient has transaminitis (Pagana et al., 2023). ALT was 235 u/L (4-36 u/L) -> The patient has transaminitis (Pagana et al., 2023). The AST and ALT have been tested throughout his admission and have been trending down toward normal. Alkaline phosphate was 575 u/L (85-235 u/L) -> Increased levels can be associated with bone or liver disorders, which has already been determined regarding his liver (Pagana et al., 2023). C-Reactive Protein was 4.59 mg/dL (<1.0 mg/dL)-> This increases with a bacterial infection, which he has in his lungs (Pagana et al., 2023). This lab value has been tested throughout the admission stay and has been trending downward towards normal. Patient tested positive for adenovirus, as well as the RSV. Normal is negative -> This relates as this explains why he was sick and developed respiratory failure. White blood count was 4.84 10^3/uL (5-10 10^3/uL) -> This can be caused

by overwhelming infections, such as RSV and bacterial pneumonia, and congenital marrow aplasia (Pagana et al., 2023). This was tested throughout admission stay. The values have been trending towards normal. MPV was 10.8 fL (7.4-10.4 fL) -> This can increase with valvular heart disease, which he has (Pagana et al., 2023). This was tested throughout admission stay and has been trending up and away from normal. Absolute lymphocytes were 0.99 10^3/uL (1-4 10^3/uL) -> While there is so clear reason, lymphocytes can be decreased with immunodeficiency, which is a safe assumption with him as he is chronically sick. This could be due to his genetic defect (Pagana et al., 2023). This was tested throughout his admission stay and has been trending downwards and away from normal. Absolute eosinophils were 0.00 10^3/uL (50-500 10^3/uL) -> This can happen with an overwhelming infection, which he has (Cleveland Clinic, 2022). This value has been tested throughout admission and has remained the same.

- 10/19: Chloride was 113 mmol/L (95-100 mmol/L) -> This occurred due to hyperventilation, which was caused by his initial respiratory distress (Pagana et al., 2023). This was tested again, and it trended down towards normal. CO2 was 19.0 mmol/L (20-28 mmol/L) -> This can decrease with medications, such as thiazide diuretics, which he is on (Pagana et al., 2023). This was tested again and trended back up towards normal.
- 10/23: Prothrombin time was 15.5 seconds (11-12.5 seconds) -> Medications, such as glucagon, can increase prothrombin time (Pagana et al., 2023). INR was 1.2 ratios (0.8-1.1 ratios) -> His levels may be slightly increased due to liver dysfunction and poor nutritional intake (Gerow, 2024). Hemoglobin was 8.9 g/dL (10-17 g/dL) -> Nutritional deficiency can decrease hemoglobin, which makes sense as he has a strong history of poor feeding habits (Pagana et al., 2023). Hematocrit was 27.5% (35-50%) -> Similar to his hemoglobin, hematocrit can be low due to dietary deficiencies (Pagana et al., 2023). Absolute basophils were 0.00 10^3/uL (25-100 10^3/uL) -> Basophils can decrease because of a stress reaction, which his body is experiencing both physically and emotionally (Pagana et al., 2023). A vancomycin trough was drawn and was 20.4 ug/mL (3.0-20.0 ug/mL) -> A vancomycin trough may be increased because the dosing is not where it should be (Doms, 2024).

Active Orders

- Contact and Droplet isolation due to RSV-> This is relevant to help ensure that the staff does not get sick and to help prevent the spread of infection to other patients and their families.
- Pediatric feeding every three hours through NG tube -> This is how he gets his nutrition. Since he receives it in his NG tube, it is another layer of protection to make sure he does not aspirate and to keep him growing.
- Every Monday, measure his length-> This is relevant to ensure he is growing, especially since he is extremely small.
- Check blood glucose levels every 12 hours-> The patient has hyperinsulinism. His blood sugar needs to be monitored to make sure he does not drop too low.
- Vitals every four hours-> Vitals create a bigger picture as far as how well the patient is doing hemodynamically. Doing vitals often, in his case, tell if he has a fever or maybe experiencing pain.
- Daily weight before breakfast-> This is relevant to make sure the baby is growing and gaining weight, which is a particular struggle for him.
- NG/OG tube placement and care-> If the NG tube is not placed in the appropriate location, such as his lungs, there is a safety concern because his feeding is going through his lungs. Checking the placement and caring for it also helps decrease infections.
- Elevate head of bed-> Elevating the head of the bed facilitates the feeding to go further through his gastrointestinal system and not get it thrown up.
- IV Access-> This is needed for medications, such the dextrose.

- Suction as needed-> Suctioning helps clear the secretions, which improves the airway and ventilation.
- Chest physiotherapy 2X per day in the right upper lobe area->
- Optiflow-> Since he developed respiratory failure, the optiflow helps decrease the work of breathing to the patient, delivers a higher concentration of oxygen, and helps to avoid any form of intubation.
- Continuous pulse ox-> The continuous pulse ox is a way to measure how well the optiflow is working. Part of the core nursing assessment is the ABC's. This helps ensure that he is achieving his airway and circulation needs.
- Speech therapy evaluation and treatment-> The 18-week-old has a difficult time with feeding. He is extremely small for his age, has dysphagia, and developed aspiration pneumonia.
- Consult pediatric ICU-> This is relevant due to his worsening respiratory status.
- Consult pediatric gastroenterology-> This is relevant due to difficulty feeding, failure to thrive, and continuous aspiration. They may suggest further testing or surgery to help fix these issues.

Medical History

Previous Medical History: Patient has a past medical history of neonatal hypoglycemia, mild left pulmonary artery stenosis and left pulmonary artery banding, poor weight gain, transaminitis, umbilical hernia, hyperinsulinism, unidentified genetic syndrome (autosomal dominant and X-linked), IUGR/SGA, hyponatremia (at birth), premature ventricular contraction, previous atelectasis of right lung, hydrocele as infant, and chronic lung problems.

Prior Hospitalizations: Patient was admitted to the NICU the day he was born and was there one month and three days. Then, not even a month later, he was admitted to the pediatric floor and was there for two days because of respiratory distress. Exactly one week later, he went to the ER and was admitted again to the pediatric unit for respiratory distress. They were discharged the next day. On September 15th, they went to OSF Sacred Heart for respiratory distress and were then transferred to Carles pediatric unit and then discharged on September 20th. Then, he is in the hospital now and has been since the 18th.

Past Surgical History: None

Social Needs: At eighteen weeks old, a baby needs to build trust. This is done through bonding, interactions, and building an emotional bond. Holding the baby when he cries, comforting him, smiling, speaking to him, or singing to him will help to ensure his needs are being met. There were times when his foster mom was not there. Either the tech, nurse, or I comforted him by swaddling him tight or patting him firmly.

Pathophysiology

Disease Process: Respiratory syncytial virus (RSV) is an RNA virus that is transmitted through contact and droplet with the virus. The virus replicates in the upper respiratory tract, where it is then spread to lower respiratory tract, such as the bronchioles and alveoli. It narrows the airways, which can lead to respiratory distress. In the case of my patient, it eventually lead to respiratory failure (Shang et al., 2021).

S/S of disease: Three to seven days after exposure to the virus, the typical signs and symptoms set it, such as a fever, runny nose, congestion, or cough (Shang et al., 2021). For babies, they may be fussy, have feeding issues, changes to their breathing, or have a fever (Cleveland Clinic, 2025). The patient experienced a runny nose and a decrease in feeding. Eventually, he experienced breathing difficulties, such as trouble breathing and wheezing.

Method of Diagnosis: To diagnose RSV, a nasal swab is done. Additionally, a chest X-Ray may be completed if they suspect further complications, such as pneumonia (Cleveland Clinic, 2025). In the case of my patient, he had both tests done.

Treatment of Disease: There is no specific treatment for RSV. For some, letting the virus take its course is the treatment. Things such as acetaminophen, a humidifier, fluids, and clearing the airway can help with recovery. However, for some, such as the patient, being admitted to the hospital where he received oxygen and fluids was his course of treatment. Antibiotics are not effective as this is a virus. There is an RSV immunization to help prevent this (Cleveland Clinic, 2025).

Assessment	
General	Patient is alert. He is well groomed and shows no acute signs of distress.
Integument	Patient is a very, dark brown. Skin is warm, dry, and intact. No lesions, rashes, or bruising. Skin turgor was normal. Fingers and toes were short. Nails showed no signs of clubbing or cyanosis.
HEENT	Head was asymmetrical. Patient had a strawberry shaped head. Bilateral sclera white. Bilateral cornea clear. Bilateral conjunctiva pink. There were two white patches on the bottom gums, indicating his teeth may be emerging soon. Face was symmetrical. Ears were smaller than the typical baby.
Cardiovascular	Clear S1 and S2 without murmurs, gallops, or rubs. Normal rate and rhythm. All extremities warm and dry. Pulses 2+ bilaterally. Capillary refill less than three seconds fingers and toes bilaterally. No edema inspected or palpated in all extremities
Respiratory	Rate and rhythm were abnormal. There were periods of apnea followed by rapid and shallow breaths. Respirations were symmetrical but labored. Wheezes were heard in the anterior upper lobes bilaterally.
Genitourinary	Genitals were normal. Had three wet diapers. Urine was clear and yellow. Patient did not have a catheter,
Gastrointestinal	He had a nasogastric tube. His bowels sounded normoactive. There was no distention or bruising on his abdomen. No scars, wounds, or incisions noted. He does not have an ostomy.
Musculoskeletal	Nails beds were normal with no cyanosis or clubbing. Skin was warm. Used arms and legs equally and bilaterally.
Neurological	Patient MAEW. Patient was alert. Patient babbled and cooed.
Most recent VS (highlight if abnormal)	**Time:** 1125 **Temperature:** 37.1°C (98.7°F) **Route:** Axillary **RR:** 56 **HR:** 163 bpm **BP and MAP:** 88/64 (MAP: 71) **Oxygen saturation:** 98%

	Oxygen needs: Optiflow
Pain and Pain Scale Used	FLACC-> score was zero (neutral expression, normal positioning of legs, lying quietly, not crying, and content)

Nursing Diagnosis 1 Impaired gas exchange related to hypoxemia as evidenced by nasal flaring and use of accessory muscles (Wagner, 2023).	**Nursing Diagnosis 2** Imbalanced nutrition related to dysphagia as evidenced by lack of growth in weight and height (Cumpian, 2025).	**Nursing Diagnosis 3** Risk for unstable blood glucose related to increased release of insulin (Salvador, 2023).
Rationale This was chosen because based on the ABCs, his breathing takes the importance.	**Rationale** This was chosen because despite him being 18 weeks, he weighs the equivalent to a newborn. This is important as his nutrition will be the only thing to help him improve.	**Rationale** This was chosen because with his blood sugars constantly dropping, it can cause serious side effects and even death if this goes unnoticed.
Interventions **Intervention 1:** Administer oxygen (Wagner, 2023). **Intervention 2:** Suction him. This will help with better oxygenation exchange (Wagner, 2023).	**Interventions** **Intervention 1:** For the baby, he gets measured in the morning before he eats, ensuring he is measured the same each day, such as not wearing a diaper (Cumpian, 2025). **Intervention 2:** Consult with dietician and SLP. They will help plan of care as far as his nutrition and ways to feed him that will be beneficial (Cumpian, 2025).	**Interventions** **Intervention 1:** Teach the caregiver the signs and symptoms of hypoglycemia, such as shaking, lethargic, or poor feeding (Salvador, 2023). **Intervention 2:** Teach the caregiver how to measure the patients' blood sugar (Salvador, 2023).
Evaluation of Interventions The interventions worked. He is tolerating oxygen well. His oxygen saturation is at 98%. When he breathes, congestion is not audible, which indicates his nose is clear.	**Evaluation of Interventions** The interventions worked. He has gained weight since his initial admission. Dietary and the SLP have aided in his feedings as far as what his body needs and have helped with feeding aids, such as keeping the head of the bead elevated.	**Evaluation of Interventions** The interventions worked. The caregiver is able to repeat the signs and symptoms and measures the baby's glucose at home.

		What do you expect?	What did you observe?
Erickson's Psychosocial Developmental Stage	Trust vs. Mistrust (McLeod, 2025)	I would expect the child to be soothed by the caregiver or anyone when upset, smile when talked to, and calm down when touched (McLeod, 2025).	He did just so. He would calm down when he was soothed by his foster mom and staff, he cooed and smiled when his grandma visited, and calmed down when he was physically reassured by his caregiver and staff.
Piaget's Cognitive Developmental Stage	Sensorimotor Stage (McLeod, 2025)	I would expect the child to grasp objects, develop object permanence, and explore their senses (McLeod, 2025).	He would grasp objects. He was constantly taking his oxygen out with his fingers. I tried playing peek-a-boo with him and seemed to not understand. He was no phased when I did so. He explored his senses by grabbing things and watching and listening to his toy that had a sound machine on it and showed fish and bubbles in the fish tank.
Age-Appropriate Growth & Development Milestones	1. Turn his head towards sounds. He only looked at me if I was standing directly in front of him. 2. Move his arms and legs more. He sat up when grandma held him but did not seem to move his extremities a ton. 3. Change the tone of his voice. He would coo, but it was in the same tone of voice.		
Age-Appropriate Diversional Activities	1. Increase tummy time. With him aspirating and needing the HOB elevated, this was not done. Hopefully, as he gets better, he can do so. 2. Continue to play peek-a-boo. 3. Have him look at a mirror.		

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