Medications

- **ceftriaxone: 1,300mg in 0.9% NaCl 63 mL – 120mL/hr**
- **acetaminophen (Tylenol): 160 mg/5mL oral liquid.**
  - **For mild pain (1-3 pain scale), fever above 100.4F.**
- **Albuterol sulfate: 2.5 mg/3mL nebulizer solution – 2.5 mg.**
  - **For wheezing, cough**
- **Ibuprofen: oral suspension - 260 mg**
  - **For mild pain (1-3 pain scale), fever above 100.4F.**

Demographic Data

Admitting diagnosis: Rhinovirus/enterovirus

Age of client: 7 yrs old

Sex: Male

Weight in kgs: 27.3 kg

Allergies: NKA

Date of admission: 09/19/2024

Psychosocial Developmental Stage: industry vs. inferiority

Cognitive Development Stage: preoperational, child showed signs of engaging in pretend play.

Admission History

Concerns about increasing shortness of breathing and increase work of breathing in the setting of having been diagnosed with pneumonia on 09/15/2024. Pt was started on amoxicillin 4 days ago and has been taking as prescribed. Mother states there has been no vomiting, diarrhea, or other symptoms.

Pathophysiology

Disease process: Human rhinovirus (HRV) is a member of Enterovirus genus and Picornaviridae (Smith & Wilson, 2019). This virus was first identified as the most important cause of the "common cold" (Smith & Wilson, 2019). HRV is a benign virus that restricts and grows within the upper and lower airways of humans. Several studies have shown evidence that there is an association between HRV and hospital admissions for asthma, bronchiolitis, and pneumonia (Smith & Wilson, 2019). My patient could also have evidence of this because of being diagnosed with pneumonia four days prior to being admitted into the hospital with SOB.

S/S of disease: Signs and symptoms of this virus include nasal dryness or irritation, sore throat or throat irritation, nasal discharge, sneezing, headache, facial and ear pressure, cough (30% of infected individuals), irritability or restlessness (Buensalido, 2023). Infants and preschoolers will often have a fever of 38-39C, instants and toddlers may display only nasal discharge, and school-aged children usually complain of nasal congestion, cough, and runny nose (Buensalido, 2023). Physical examination findings could be a red nose with nasal discharge with characteristics being clear and watery or purulent (green/yellow), cough, mild fever

Method of Diagnosis: To diagnosis rhinovirus the nurse should start by doing a physical examination followed by lab tests. These lab tests would include a WBC, CDC, and ESR (Buensalido, 2023). Because of the extended period it takes to obtain a positive culture, rhinovirus cultures have been found to not be as useful in the clinical setting (Buensalido, 2023). PCR testing of the respiratory specimens could be a better route for evaluating the severity of the infection (Buensalido, 2023).

Treatment of disease: Rest, hydration, antihistamines, and nasal decongestants are the main ways to manage rhinovirus (Buensalido, 2023). Other ways are disinfecting the environment using alcohol-based compounds, washing hands, positioning the mattress at 45-degree angle, provide a comfortable environment temperature, and the use nasal saline drops with bulb-syringe for nostril aspiration (Buensalido, 2023).

Relevant Lab Values/Diagnostics

- **Glucose: 141 (74-100)**
- **Potassium: 3.3 (3.5-5.1)**
- **Creatinine: 0.57 (0.70-1.30)**
- **Albumin: 3.7 (3.8-5.4)**
- **MCV: 73.46 (74.4-86.1)**
- **MCHC: 35.6 (32.2-34.9)**
- **Absolute EOS: 0.56 (0.03-0.52)**
- **CxR: right lower lobe infiltrated, no evidence for significant pleural effusion**
- **Rhino test: positive**

Medical History

Previous Medical History: 09/18/2024 ED for SOB, pneumonia 09/15/2024, attention deficit 12/29/2020, allergic rhinitis, unspecified seasonal 11/07/2018, articulation disorder 04/05/2018

Prior Hospitalizations: N/A

Past Surgical History: routine circumcision 11/01/2016

Social needs: None, comes from nuclear family, good support family and friends. No food insecurities, no transport needed.

Active Orders

- **Continued CxR Q24 hr.**
- **Provide 02 via Nasal cannula as needed, ween as tolerable.**
- **Albuterol meds PRN**

Assessment	
General	**Well-developed and groomed, age appropriate, no acute distress**
Integument	**Skin is warm and dry, no rashes noted**
HEENT	**Normocephalic atraumatic, sclera white, conjunctiva within normal limits, nose symmetrical externally, mucosa moist, nares congested bilaterally**
Cardiovascular	**Rhythm and rate within age limits, S1-S2 normal, no stridor**
Respiratory	**Clear, occasional abnormal breath sounds, but largely appears to be transmitted from upper airway**
Genitourinary	**Clear, appropriate amount, no pain or discomfort when voiding.**
Gastrointestinal	**Soft, nondistended, nontender, normoactive bowel sounds.**
Musculoskeletal	**No cyanosis, no swelling, moves all extremities, strength in extremities symmetrical**
Neurological	**Awake, alert, A&Ox4**
Most recent VS (highlight if abnormal)	**Time: 1123** **Temperature: 36.6 C** **Route: Oral** **RR: 20** **HR: 96** **BP and MAP: 113/82** **Oxygen saturation: 96%** **Oxygen needs: RA, order for O2 if dropped below parameters**
Pain and Pain Scale Used	**0/10 on numeric pain scale**

Nursing Diagnosis 1	Nursing Diagnosis 2	Nursing Diagnosis 3
Rationale **Impaired gas exchange related to accumulation of mucus in the airway as evidenced by the patient being put on 1 L of oxygen while sleeping because he could not keep his O2 stat within normal limits (Phelps, 2023).**	**Rationale** **Fatigue related to the body's immune system response attacking pathogens as evidenced the patient verbalizing feeling "tired" (Wagner, 2023)**	**Rationale** **Acute pain related to sore throat, cough, and congestion as evidenced by the patient stating his throat was sore because he "coughed all night" (Sarwar, 2023).**
Interventions **Intervention 1: Administer O2 as prescribed** **Intervention 2: Have patient on a continuous pulse ox monitor for when pt. has O2 off.**	**Interventions** **Intervention 1: Restrict environmental stimuli during sleep and rest periods (Wagner, 2023)** **Intervention 2: Encourage the patient to eat proper nutrition (Wagner, 2023)**	**Interventions** **Intervention 1: Administer pain medication as prescribed.** **Intervention 2: Encourage the patient to drink adequate fluids (water) to help break up the mucus secretions (Sarwar, 2023)**
Evaluation of Interventions **Pt. was able to maintain normal oxygen stat while sleeping before discharge.**	**Evaluation of Interventions** **Patient had enough energy to stay up and play his video game before napping along with having an upbeat attitude.**	**Evaluation of Interventions** **The patients' cough was tolerable and able to relieve with over the counter meds before discharge.**

References (3):

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Sarwar, A. (2023, November 25). *Nursing care plan for Rhinovirus*. Made For Medical. https://www.madeformedical.com/nursing-care-plan-for-rhinovirus/

Smith, M. E., & Wilson, P. T. (2020, June). *Human rhinovirus/enterovirus in pediatric acute respiratory distress syndrome*. Journal of pediatric intensive care. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7186013/

Wagner, M. (2023, October 16). *RSV: Nursing diagnoses, care plans, Assessment & Interventions*. NurseTogether. https://www.nursetogether.com/respiratory-syncytial-virus-rsv-nursing-diagnosis-care-plan/