

**Lakeview College of Nursing
N433 Pediatrics Clinical Care Plan**

Student Name Madisyn Verostko

CLINICAL DATE __11-9-19__

Patient's Age __1 year 6 months____
BMI __19_kg/m2__

Weight (in kg) __12.2__

Allergies/Sensitivities to medications, foods, contact, environmental, etc. Include reactions:

No known allergies

Chief Complaint (Reason for admission): Acute respiratory failure with hypoxia
Admit date: 11/6/19

Other co-existing conditions: Bronchiolitis

History of Present Illness (What events led up to this child being admitted to the hospital, etc.):

Parents brought 18 month old to ED reporting a cough, congestion, runny nose, and difficulty breathing for about a day. Pt had a similar respiratory episode a month ago and was treated outpatient with steroids, nebs, and antibiotics. This episode is much more severe than the previous one. Bronchitis confirmed upon evaluation in ED. Bronchodilators were not helpful in ED. HFHH NC provided much relief. Pt to be admitted to PAC.

Pertinent Events during this Admission and Hospitalization (IV starts, lab test, etc.):

Blood draws by phlebotomy, no IV starts. Pt had respiratory pathogen labs ran, confirmed rhino/enterovirus and ruled out RSV. Pt placed on droplet precautions.

Past Medical & Surgical History (illnesses, hospitalizations, immunizations, birth history-any complications?)

No past medical or surgical history. No immunizations - family is Amish.

Child's diagnosis: Acute respiratory failure with hypoxia

Etiology of disease process (what causes it): most commonly caused by a virus. The most common virus that causes Bronchiolitis is respiratory syncytial virus (RSV) (Bronchiolitis, 2018).

Pathophysiology: (What is the pathophysiology of this disease and what goes on in the body as a result of this disease? Put in your own words & site reference)

Bronchiolitis occurs when a virus infects the bronchioles, which are the smallest airways in your lungs. This infection causes swelling and inflammation within the small airways. Mucus collects in these airways, which makes it difficult for air to flow freely in and out of the lungs (Bronchiolitis, 2018).

Manifestations are similar to those of the common cold in the first few days. These manifestations progress to wheezing, shortness of breath, and coughing. Most children with Bronchiolitis can be treated outpatient and do not require hospitalization. However, in more severe cases, hospitalization may be needed. Complications that can stem from Bronchiolitis include cyanosis, apnea, dehydration, low oxygen levels, and respiratory failure (Bronchiolitis, 2018).

The viruses that cause this infection are very easily spread from an infected individual to others. They can be transferred through droplets in the air, which can be present when a person coughs, sneezes, or talks (Bronchiolitis, 2018).

Reference

Bronchiolitis. (2018, April 20). Retrieved from

<https://www.mayoclinic.org/diseases-conditions/bronchiolitis/symptoms-causes/syc-2035>

1565.

Clinical Manifestations of the disease (circle those exhibited by your patient) – include lab values, tests, etc:

For the first few days, the signs and symptoms of bronchiolitis are similar to those of a cold such as a runny nose, stuffy nose, cough, and a possible slight fever. As the infection progresses, the child will begin to show more respiratory symptoms such as difficulty breathing, wheezing, and a more severe cough. Many infants will also have an ear infection. These symptoms can persist from several days to several weeks (Bronchiolitis, 2018).

Vital Signs: (List your source for the Normal ranges) T_36.1 C _HR._119__ (NL for age) __70-150__ RR. 30__ (NL for age) _25-35__ B/P _120/61__ (NL for age) __86-117/47-76____ O2 sat_94_ Room Air or Oxygen HFHH NC 6 L

Reference for normal ranges: Focus sheet 1: Developmental chart you provided to us (source = ATI)

Intake/Output: (IV, PO, Out & Deficits)

Intake - 900

Output - 922

Clinical Day Evaluation Data – Head to toe physical assessment (Do not use WNL or WDL):

- General - pt is calm and cooperative. Pt is talkative and cheerful
- HEENT - PERRLA noted. Bilateral nostrils congested.
- Integumentary- skin color is normal for ethnicity. Turgor is elastic. No bruises, rashes, or wounds noted.
- Respiratory - Abnormal XR finding in RUL. Pt is tachypnic and retractions are present. Cough is present but infrequent. Lung sounds are evident and coarse in all fields. Faint expiratory wheeze noted bilaterally. Pt was receiving O2 6 L/min of 31% via optiflow. Bumped down to 4L during my shift.
- Cardio - heart sounds auscultated x5, S1 and S2 auscultated. No gallops, murmurs, or rubs noted. Cap refill normal < 3 sec.

- Neuro - pt is A&O4. Pt is calm, cooperative, and appropriate. Pt is in good spirits, playing with toys, and communicating well with others.
- Musculoskeletal- strength equal and strong bilaterally in upper and lower extremities, graded 5/5.
- GI – bowel sounds present in all 4 quadrants. Pt’s last bowel movement was today (9/21). Stool is regular in color, odor, and consistency. Pt has good appetite.
- GU – no difficulties voiding.

Pain History & assessment: Type, location, intensity & timing, precipitating factors, relief measures/interventions, rating scale used, physiological and/or behavioral signs, evaluation of pain status after medication is given:

- FLACC score=0, no obvious or suspected pain

Lab Tests:

TEST	NORMAL (specific for age)	Prior	Clinical Day	Correlation to current health status & comment on trending (comment only on abnormal lab results)
RBCs	4.1-5.55	N/A	N/A	
Hgb	13.9-19.1	N/A	N/A	
Hct	39.8-53.6	N/A	N/A	
MCV	91.3-103.1	N/A	N/A	
MCH	31.3-35.6	N/A	N/A	

MCHC	33-35.7	N/A	N/A	
WBCs	8.04-15.4	N/A	N/A	
Neutrophils	1.6-6.06	N/A	N/A	
Eosinophils	0.12-0.66	N/A	N/A	
Basophils	0.02-0.11	N/A	N/A	
Monocytes	0.52-1.77	N/A	N/A	
Lymphocytes	2.07-7.53	N/A	N/A	
Platelets	218-419	N/A	N/A	
TEST	NORMAL (specific for age)	N/A		
		Prior	Clinical Day	Correlation to current health status & comment on trending
Glucose	60-99	N/A	N/A	
Na ⁺	136-145	N/A	N/A	
Cl ⁻	98-107	N/A	N/A	
K ⁺	3.5-5.1	N/A	N/A	
Ca ⁺⁺	8.5-10.1	N/A	N/A	

Phosphorus	2.5-4.9	N/A	N/A	
Albumin	3.4-5.0	N/A	N/A	
Total Protein	Not available	N/A	N/A	
BUN	7-18	N/A	N/A	
Creatinine	0.7-1.3	N/A	N/A	
TEST	NORMAL (specific for age)			
		Prior	Clinical Day	Correlation to current health status & comment on trending
Liver Function Tests	N/A	N/A	N/A	
Urinalysis	N/A	N/A	N/A	
Urine specific gravity	N/A	N/A	N/A	
Urine pH	N/A	N/A	N/A	
Creatinine clearance	N/A	N/A	N/A	
Other Labs:				

Rhino/enterovirus	negative	detected	N/A	Rhino/enterovirus is the virus that caused bronchiolitis infection.
RSV	negative	negative	N/A	

Diagnostic Studies:

TEST & RESULTS	Correlation to current health status (if abnormal)
Chest x-ray: <ul style="list-style-type: none"> 2 view chest x-ray in ED 	CXR showed findings consistent with bronchitis or asthma. This is expected with pt's respiratory infection, rhino/enterovirus and bronchiolitis.
CT Scan/MRI: N/A	
Biopsy/Scope: N/A	
Cultures: N/A	
Other: N/A	

List of active orders on this patient:

ORDER	COMMENTS/RESULTS/COMPLETION
Activity: <ul style="list-style-type: none"> Increase activity as tolerated 	Pt is up and active playing with toys

<p>Diet/Nutrition:</p> <ul style="list-style-type: none"> • Diet: regular • I&O per protocol 	<p>Pt has good appetite and is consuming adequate amounts. Intake and output is balanced with no deficits.</p>
<p>Frequent Assessments:</p> <ul style="list-style-type: none"> • Respiratory assessment q. 2 hr • Vitals q. 4 hr • CR monitoring • Continuous pulse oximetry monitoring 	<p>Nurse performs assessments q. 2 hr, vitals collected q. 4. Applied new pulse ox probe during my shift.</p>
<p>Labs/Diagnostic Studies:</p> <ul style="list-style-type: none"> • N/A 	
<p>Treatments:</p> <ul style="list-style-type: none"> • Suction PRN • Bronchiolitis treatment (O2 therapy, steroids) • HFHH NC • Isolation - droplet 	<p>Pt reduced from 6 L to 4 L of HFHH NC during my shift. Steroids administered once during my shift, to be administered once again tonight (BID). Droplet protocol followed by wearing mask in room at all times.</p>
New Orders for Clinical Day	
ORDER	COMMENTS/RESULTS/COMPLETION
No new orders during clinical day	
No new orders during clinical day	
No new orders during clinical day	

- **Teaching & Learning:** Identified teaching need (be specific): Bronchiolitis treatment

Summarize your teaching (prioritization in care, methods used, materials used, time to provide, etc.):

- Family needs education of treatment child will need, while hospitalization and at home after discharge. During hospitalization pt will receive high flow oxygen via nasal cannula. Inform family that this must stay on at all times. Educate them that we will taper down the flow as pt can tolerate to wean him off of the oxygen. Educate family on medications that will be needed to treat his respiratory infection (steroids). Educate them on the side effects and possible complications with taking steroids. Educate family that nurse may have to suction pt if indicated due to thick secretions. Educate them what this will consist of and what they can expect to see. Educate family on droplet isolation. Explain that all healthcare personnel will be wearing masks, and that it is up to them if they wish to or not
- Educate on possible treatment that may be needed at home (nebs, continued meds). Educate on med compliance.
- Educate on what follow-ups will be needed.
- Ensure that financial needs are addressed and help is provided where needed.
- Teach family about herbal supplements. They choose to treat pt with herbals, so educate them appropriately. Instruct them to inform their doctor of all herbals their child takes.

Evaluation of your teaching (establish expected outcomes and describe if met; effectiveness of materials/approach, what next?):

- Family is very receptive and accepting to teaching. Understanding is demonstrated and parents prove to be involved in the child's care. For example, mom knew how the child liked to take medication (mixed with OJ) and dad helped administer it. Parents are very good with child and demonstrate a good grasp on care.

Developmental Assessment: Be sure to **HIGHLIGHT** the achievements of any milestone if noted in your child. Be sure to circle any use of diversional activity if utilized during clinical. There should be a minimum of 3 descriptors under each heading.

Age Appropriate Growth & Developmental Milestones

1. Imitate gestures

2. Say negative phrases such as “no”

3. Helps dress self

Age Appropriate Diversional Activities

1. Plays with toys

2. Watch cartoons

3. Put together puzzle

Psychosocial Development: Which of Erikson’s stages does this child fit? Autonomy vs. Shame and doubt

What behaviors would you expect?

Increased independence and willingness to explore.

What did you observe?

I saw both of these in my patient. The child was very adamant about doing everything himself from collecting vitals to administering medication.

Cognitive Development: Which stage does this child fit, using Piaget as a reference?
Sensorimotor

What behaviors would you expect?

- Trial and error experimentation.

What did you observe?

- I observed this in my patient.

Vocalization/vocabulary: Development expected for child’s age and any concerns?
Expected vocabulary for an 18 month old would be 5-20 words and commonly using negative phrases such as “no”. These were evident in my patient.

Any concerns regarding growth and development?

This pt is meeting all appropriate developmental milestones, no concern for growth/development.

Potential Complications that can occur because of this disease/disorder:

Potential Complication	Signs/Symptoms	Preventative Nursing Actions
1. Hypoxia	<ul style="list-style-type: none"> • Decreased O2 sat • Discolored (blue/purple) lips • SOB • Confusion/irritability 	<ul style="list-style-type: none"> • Provide oxygen therapy as needed • Monitor O2 sat • Elevate head of bed as needed • Assist with ambulation and ADLs to prevent exertion hypoxia • Encourage deep breaths (IS)
2. Aspiration pneumonia	<ul style="list-style-type: none"> • Pink/frothy sputum • Cough with or without mucus • Cyanosis around the mouth • fever 	<ul style="list-style-type: none"> • Suction PRN • Increase fluids to thin secretions • Monitor and maintain patent airway • Administer Baby Ayr to thin secretions

Nursing Care Plan

Nursing Diagnosis <u>Prioritize-most important to least</u>	Outcomes (Patient/Family will: and <u>give time line</u>) (<u>MUST BE MEASURABLE</u>)	Nursing Interventions <u>With rationale</u> <u>(At least 2 nursing interventions per outcome)</u>	Evaluation of <u>EACH</u> outcome

<p>Ineffective airway clearance</p> <p>Related to: Bronchiolitis</p> <p>AEB (as evidenced by):</p> <p>Thick, mucus secretions and coarse productive cough</p>	<p>1. Pt will not require suctioning of secretions for 3 days prior to discharge</p> <p>2. Secretions have become visibly thinner and pt is able to clear secretions well by discharge</p>	<p>Encourage pt to cough up and spit out secretions - physically clearing the mucus is the only way to get rid of it and prevent having to use suction</p> <p>Increase fluid intake - increasing fluid intake will help thin secretions and make them easier to clear.</p>	<p>Outcomes Met/ Partially met/ Not met (with Explanation)</p> <p>1. Goal met - pt has not required suction for 3 days</p> <p>2. Goal met- pt is consuming adequate fluids and secretions are becoming visibly thinner and less mucousy</p> <p>What next? Continue to monitor airway and ensure patency. Continue to implement high fluid intake.</p>
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Nursing Care Plan

Nursing Diagnosis <u>Prioritize-most important to least</u>	Outcomes (Patient/Family will: and give time line) (MUST BE MEASURABLE)	Nursing Interventions <u>With rationale</u> (<u>At least 2 nursing interventions per outcome</u>)	Evaluation of <u>EACH</u> outcome
<p>Impaired gas exchange</p> <p>Related to:</p> <p>Hypoxia, bronchiolitis</p> <p>AEB (as evidenced by): Use of accessory muscles, requires high flow O2, dyspnea upon exertion, wheezes</p>	<ol style="list-style-type: none"> Pt will decrease at least 1 L of O2 per day until discharge and consistently sats ≥ 92 on RA Pt will ambulate around the unit without exertion hypoxia (maintain O2 	<p>Slowly wean O2 as tolerated by pt- slow weaning is crucial to help strengthen pt's ability to perfuse on his own</p> <p>Monitor O2 sat continually to evaluate if pt falls below 92 - this will indicate impaired gas exchange persists.</p>	<p>Outcomes Met/ Partially met/ Not met (with explanation)</p> <ol style="list-style-type: none"> Goal met- pt is being weaned off a liter a day, today was actually knocked down 2 liters Goal not yet met- have not yet weaned pt to RA. Will ambulate

	sat >=92 and RR will be 12-20)		and monitor when pt is sitting >= 92 on RA for a day What next? Wait till pt is on RA to attempt ambulation. Continually monitor O2 sat.
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N433 Medication Form

Patient Initials: _JW_

Patient Age: _18 mo._

Patient Weight (in kg): 12.2 kg

Scheduled Medications				
Medication Trade & Generic Names, Pharmaceutical Class Action of the medication (how does the medication work in the body <u>in your own words</u>)	Dose, route, & frequency ordered for this patient	Concentration Available Why is this pt. taking this?	Calculate the safe dose ranges by what is given as a safe dose times the child's weight. Do this for a 24 hour period. (Show Calculations) Is this dose safe for this pt.?	<u>Nursing Considerations</u> (at least 3 & must be appropriate for this patient, & include any labs that need to be done to monitor pt. while taking this medication) <u>Contraindications</u> <u>Common side effects</u>

<p>Millipred Prednisolone</p> <p>Class: glucocorticoid MOA: inhibits multiple inflammatory cytokines</p>	<p>12.3 mg = 4.1 mL BID, PO</p>	<p>3 mg/mL, 15 mg/5mL oral solution</p> <p>Pt taking for bronchiolitis infection</p>	<p>2 mg/kg/day = safe dose = 24.4 mg/day (12.2 mg per dose). Prescribed = 12.3 mg - YES this is safe</p>	<p>Nursing Considerations:</p> <ul style="list-style-type: none"> - Avoid abrupt withdrawal - Monitor electrolytes - Monitor BP and weight <p>Contraindications:</p> <ul style="list-style-type: none"> - Hypersensitivity to drug or its components - Systemic fungal infection <p>Common side effects:</p> <ul style="list-style-type: none"> - Weight gain - Abdominal discomfort - Appetite changes
<p>acetaminophen/ Tylenol</p> <p>Class: antipyretic / nonopioid analgesic</p> <p>MOA: Inhibits the synthesis of prostaglandins that may serve as mediators of</p>	<p>86.4 mg, oral suspensi onq4 hours</p>	<p>100 mg/ml or 160 mg/5 ml, PRN for mild pain/ fever</p>	<p>10-15 mg/kg/dose</p> <p>10X5.88= 58.5 mg/dose</p> <p>15X5.88=88.2 mg/dose</p> <p>This dose is safe.</p>	<p>Nursing Considerations:</p> <ul style="list-style-type: none"> - assess fever, note signs of presence such as diaphoresis, tachycardia and malaise - evaluate hepatic function before admin (LFTs)

<p>pain and fever, primarily in the CNS.</p>				<ul style="list-style-type: none"> - evaluate renal function before admin and throughout therapy (BUN and Creatinine) Contraindications: <ul style="list-style-type: none"> - allergy to medication - renal dysfunction - liver dysfunction Common Side Effects: <ul style="list-style-type: none"> - agitation - atelectasis in children - constipation in children
<p>Sodium Chloride 0.65% nasal drops / BABY AYR</p> <p>Classification: nose preparation</p>	<p>1 drop each nostril, PRN</p>	<p>0.65% sodium chloride nasal drops</p> <p>Pt taking to thin respiratory secretions r/t bronchiolitis</p>	<p>This is the recommended dosage according to manufacturer, YES it is safe.</p>	<p>Nursing Considerations:</p> <p>Contraindications:</p> <ul style="list-style-type: none"> Allergy to aloe Allergy to eucalyptus Allergy to menthol containing products <p>Common side effects:</p> <ul style="list-style-type: none"> Allergic reaction Nose irritation

Reference:

2019 Nurses drug handbook. (2019). Burlington, MA: Jones & Bartlett Learning.

N433 CARE PLAN
GRADING RUBRIC FOR HOSPITAL

Name: _____
_____ Grade _____

Date

Section	Definition	Possible Points	Final Points
Age/Weight/BMI	Age is written in years & months. Weight is calculated in kilograms. BMI is written correctly	1	
Allergies & reaction to each	Allergies/sensitivities to food, contact, environmental. Include reactions	2	
Chief Complaint/Medical Diagnosis/Co-existing Conditions	Chief complaint, reason for admission, current primary diagnosis. Are there any other health/medical co-morbidities?	3	
History of Present Illness	Describe what has happened to the child that caused this child to be admitted	5	

Pertinent Events during this Admission	i.e., Surgery, instability during hospitalization, diagnostic tests, IV starts, procedures	1	
Past Medical & Surgical History	Past surgeries, previous health issues and diagnoses	2	
Pathophysiology	Explain in your own words the pathophysiology of the current, primary diagnosis. If a resource is used, please site the reference.	5	
Vital Signs and I & O	All vital signs and document normal vital signs for child's age. All I & O is documented with deficits	2	
Clinical Day Evaluation	Head to toe physical assessment with comments (DO NOT use WNL/WDL) & emphasis on systems affected by chief complaint/medical diagnosis.	8	
Pain Assessment	OLDCART, pain rating and pain scale used	2	
Lab Tests	Labs day of clinical and prior tests (trend them if numerous test). Give rationale for abnormal lab tests.	2	
Diagnostic Studies	X-rays, biopsies, EKG, CT scans, MRI, scopes, cultures, etc.	2	
Patient Orders Clinical Day	Activity, diet, assessments, labs/studies, treatments, code status, etc.	1	

Clinical Day new orders	Activity, diet, assessments, labs/studies, treatments, code status, etc.	1	
Teaching and learning	Identify teaching need. Summarize teaching. Evaluate teaching.	3	
Developmental Assessment	<p>3 Age appropriate growth and developmental milestones that should be expected for the child's age.</p> <p>3 Age appropriate Divirsonal/Distracton activities appropriate for child's age.</p> <p>Erikson's psychosocial development stage and behaviors expected for child's age.</p> <p>Piaget's cognitive development stage and behaviors expected for child's age.</p> <p>Vocalization/vocabulary development expected for child's age and is the child's language appropriate for that age.</p> <p>Any concerns regarding growth and development for the child.</p>	6	
Potential Medical Complications	Complications that can occur because of primary medical diagnosis/disease/condition. Signs & Symptoms of complication. Preventative nursing actions.	6	

<p>Nursing Diagnosis # 1</p> <p>Related to or AEB</p>	<p>Nursing diagnosis is pertinent to patient condition/diagnosis. Reflects and supports current primary medical diagnosis</p> <p>R/T the pathophysiology for the current primary diagnosis/condition (not medical diagnosis).</p> <p>AEB: signs and symptoms that support the nursing diagnosis</p>	4	
<p>Expected Outcomes</p>	<p>Patient will/Family will.... and <u>must have a desired outcome timeline</u>. (Must be measurable, specific, & objective) (Ex: patient will ambulate around the nurse's station once during clinical or patient will verbalize 3 signs and symptoms of infection by the end of clinical day).</p>	4	
<p>Nursing Interventions</p>	<p>What nursing interventions will you do to support meeting the patient outcomes and give rationale for each intervention of why this intervention is important? (Need at least 2 interventions per outcome)</p>	8	
<p>Evaluations & What's Next</p>	<p>Goal met/partially met/not met, why or why not, what's next? (Explain your evaluation of outcomes met, partially met, or not met (i.e., patient/family was not able to verbalize 3 signs and symptoms of infection) What's next? (What is/are the next intervention/s for the patient/family to help them meet the intended outcome)?</p>	3	

<p>Nursing Diagnosis #2</p> <p>Related To and AEB (as evidenced by)</p>	<p>Nursing diagnosis is pertinent to patient condition/diagnosis. Reflects and supports current primary medical diagnosis, MUST prioritize the most important nursing diagnosis to the least important</p> <p>R/T the pathophysiology for the current primary diagnosis/condition (not medical diagnosis).</p> <p>AEB: signs and symptoms that support the nursing diagnosis</p>	4	
<p>Expected Outcomes</p>	<p>Patient will/Family will.... and <u>must have a desired outcome timeline</u>. (Must be measurable, specific, & objective) (Ex: patient will ambulate around the nurse's station once during clinical or patient will verbalize 3 signs and symptoms of infection by the end of clinical day).</p>	4	
<p>Nursing Interventions</p>	<p>What nursing interventions will you do to support meeting the patient outcomes and give rationale for each intervention of why this intervention is important? (Need at least 2 interventions & rationale per outcome)</p>	8	
<p>Evaluations & What's Next</p>	<p>Goal met/partially met/not met, why or why not, what's next? (Explain your evaluation of outcomes met, partially met, or not met for each outcome (i.e., patient/family was not able to verbalize 3 signs and symptoms of infection) What's next? (What is/are the next intervention/s</p>	3	

	for the patient/family to help them meet the intended outcome)?		
Medications			
Scheduled & PRN	Trade/Generic name, Pharmacologic Class & Action of the medication. Indications for this patient.	3	
	Dose, Route, Frequency ordered for this patient	1	
	Concentration available and why is the child taking this medication	1	
	Calculate dose ordered times child's weight (give parameters for this medication if needed) and is this dose that's ordered safe for the child?	2	
	Three nursing considerations/implications for each medication specific to this patient and give Contraindications and Common Side Effects	3	
	Total Points Possible	100	

Total points
for this

care plan
