Bronchiolitis

Signs & Symptoms

- Initially cold symptoms:
  - runny nose
  - cough
  - slight fever
- Later signs
  - difficulty breathing
  - wheezing
  - Tachypnea
  - Lethargy

Pathophysiology

Inflammation of the lining of the epithelial cells of the small airways in the lungs causing mucus production, and inflammation of cells. This can obstruct the airway, which results in wheezing. This occurs in the small airways, or the bronchioles.

Diagnostics/Labs

- CXR
- CBC - WBC
- Viral testing - nose swab of mucus for virus causing bronchiolitis

Treatment/Medication

- In most cases, Bronchiolitis is not treated - antibiotics will not help because it is a viral infection
- Hydration
- possibly steriods
- possibly bronchodialaters
- possibly oxygen
- possibly IV fluids

Nursing Interventions

- Treat fever if applicable with acetaminophen
- Monitor I&O, make sure patient stays hydrated - keep thining secretions
- hand hygiene to prevent spread of virus & mask
- monitor for worsening symptoms such as nasal flaring, rapid breathing, retractions
- HOB up

Patient Teaching

- preventing dehydration is significant - make sure getting plenty of fluids
- call healthcare provider if you notice that the child is having more difficulty breathing such as nasal flaring, breathing fast (Tachypnea)
- Practice good hand washing to prevent spread to other children

Other

Priority Nursing Diagnosis

- airway - secretions
- Breathing

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7. Pain & Discomfort Management: List 2 Developmentally Appropriate Non-Pharmacologic Interventions Related to Pain & Discomfort for This Patient.

1. Holding/Rocking
2. Kangaroo care

***List All Pain/Discomfort Medication on the Medication Worksheet**

- Acetaminophen
- Ibuprofen

8. Calculate the Maintenance Fluid Requirement (Show Your Work):

Patient Wt: 9 **kg**

9kg x100 = 900 mL/24 → 37.5

Calculated Fluid Requirement: 38 **ml/hr**

Actual Pt MIVF Rate: — **ml/hr**

Is There a Significant Discrepancy?

—

Why?

—

9. Calculate the Minimum Acceptable Urine Output Requirement (Show Your Work):

10 months: 1mL/Kg/hr

1mL(9kg) = 9 mL/Hr

Calculated Min. Urine Output: 9 **ml/hr**

Actual Pt Urine Output: — **ml/hr**

10. Growth & Development: List the Developmental Stage of Your Patient For Each Theorist Below and Document 2 OBSERVED Developmental Behaviors for Each Theorist. If Developmentally Delayed, Identify the Stage You Would Classify the Patient:

Patient age: 10 months

Erickson Stage: Trust vs. Mistrust

1. The infant cried when she wanted to be fed and her mom began to breast feed her which consolidated her
2. The infant was crying and once the mother held and rocked her she stopped crying

Piaget Stage: Sensorimotor period: stage 4: coordination of secondary schemes

1. The infant saw her mom get up and grab her bag and began to cry because she thought she was leaving
2. The infant waved "bye-bye" to me everytime I left the room

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11. Focused Nursing Diagnosis:

- airway & breathing

12. Related to (r/t):

- mucus and secretions
- inflammation of bronchioles, obstructing the airway

13. As evidenced by (aeb):

National library of medicine: "inflammation of the lining of the epithelial cells of the small airways in the lungs causing mucus production, inflammation.."

14. Desired patient outcome:

- thinning of secretions
- decreased inflammation
- being able to breathe easier

15. Nursing Interventions related to the Nursing Diagnosis in #11:

1. Keep head of bed elevated

Evidenced Based Practice: Agency for the research - elevating HOB, associates with decreased pneumonia making breathing easier

2. Providing fluids, monitoring I+O's

Evidenced Based Practice: Mayo clinic: fluids to prevent dehydration is critical, thins secretions too

3. Administer acetaminophin for fever

Evidenced Based Practice: Mayo Clinic: acetaminophin to relieve symptoms of bronchiolitis, such as a fever

16. Patient/Caregiver Teaching:

1. Bronchiolitis can lead to ear infections or pneumonia, watch for signs + symptoms
2. There are not any medications to directly treat Bronchiolitis, but treat symptoms with meds such as acetaminophin (tortelor)
3. Clean and disinfect objects and surfaces to prevent transmission to other children in the household if applicable.

17. Discharge Planning/Community Resources:

1. Call doctor immediately for any worsening signs
2. Rest, and take in plenty of fluids
3. Handwashing to prevent transmission of viral infection

Student Name: Alexa Pagano Unit: PICU Pt. Initials: — Date: 11/26/23

Pediatric Medication Worksheet – Current Medications & PRN for Last 24 Hours

Allergies: —

Primary IV Fluid and Infusion Rate (ml/hr)	Circle IVF Type	Rationale for IVF	Lab Values to Assess Related to IVF	Contraindications/Complications
—	Isotonic/ Hypotonic/ Hypertonic	—	—	—

Generic Name	Pharmacologic Classification	Therapeutic Reason	Dose, Route & Schedule	Therapeutic Range? Is med in therapeutic range? If not, why?	IVP – List diluent solution, volume, and rate of administration IVPB – List concentration and rate of administration	Adverse Effects	Appropriate Nursing Assessment, Teaching, Interventions (Precautions/Contraindications, Etc.)
Acetaminophen	Analgesics	Fever reducer	PO NO more than 5 doses in 24 hrs	yes	—	• Liver toxicity- jaundice, dark urine, lethargy, itching	1. NO more than 5 doses in 24 hours 2. Monitor for sis of liver toxicity 3. Only take when necessary for fever, etc. 4. Assess for any allergic reactions in history
Ibuprofen	Nonsteroidal anti-inflammatory	Fever and Pain	PO based on age & weight	yes	—	• allergic reaction -hives, swelling in face or throat • stomach or intestinal bleeding	1. Report any bloody stools 2. Monitor sis of liver toxicity 3. Assess for periods use of ibuprofen & effect 4. DO not take more than recommend dose per day & only when needed
							1. 2. 3. 4.
							1. 2. 3. 4.
							1. 2. 3. 4.

Adopted: August 2016