OUTPATIENT GUIDELINE | BRONCHIOLITIS
(Age < 2 years)

Valley Children's HEALTHCARE

DEFINITION
Bronchiolitis is a clinical diagnosis, caused by a variety of viruses in children less than two years old. Patients typically have runny nose, cough, wheezing/crackling, trouble breathing and/or low-grade fever.

Step 1: Initial assessment
1. Contact/droplet precautions
2. Suction
3. Start O_2 for sustained sats < 90
4. PO liquid trial if poor PO

The following are NOT routinely recommended in AAP guidelines:
- Viral testing
- 3% saline or racemic epi
- Antibiotics
- Chest Physiotherapy
- Corticosteroids
- CXR

Consider CXR if:
- High fever late in illness
- Fever that recurs after being afebrile without the use of fever-reducing medication for ≥ 24 hours
- Hepatomegaly or concern for cardiac disease

Consider one-time albuterol trial if:
- Age > 9-12 mo. and personal history of wheezing responsive to albuterol; personal history of atopy; or strong immediate family history of asthma
- *Not indicated if < 9 mo.*

Clinical improvement per provider
(e.g., improved respiratory rate, improvement in WOB, improved O2 saturation)

Yes → **"Albuterol responsive"** Consider albuterol MDI prn

No → **"Non-responder"** No further bronchodilators

Any of the following present after step 1?
- High Work of Breathing (WOB)
- O_2 sats < 90
- Failed PO trial + signs dehydrated (needs IVF/NG)
- Barrier to outpatient management
- History of apnea at home
- Consider if, ≤ 5 kg AND *either* < 6 wks *or* BW ≤ 2 kg

No → **Discharge home (consider follow-up in 1–3 days if not improving)**
- Consider albuterol for home use only if "responder"
- Review anticipatory guidance and supportive cares
- Educate on suctioning at home options
- Update immunizations if applicable

Yes → Transfer to Emergency Department via EMS. 559-353-5803

Once the decision has been made to admit the patient please discuss/defer additional tests/treatments (e.g., CXR) with admitting provider

EXCLUSION GUIDELINES
Patients **excluded** from this guideline:
- Cardiac disease
- Chronic lung disease
- Critically ill
- Neurologic impairment
- Immunodeficiency
- Genetic difference

Reviewer: Boe, Bryan, Keosheyan, Kinnison, Lehman, Odom, Osburn, Sosa, Webb
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INPATIENT GUIDELINE

BRONCHIOLITIS
(Age < 2 years)

Valley Children's HEALTHCARE

The following are NOT routinely recommended in AAP guidelines:
- Albuterol
- Antibiotics
- Chest Physiotherapy
- Corticosteroids
- CXR
- Racemic epinephrine
- 3% saline
- Non-targeted viral testing

Initial management:
- Contact/droplet precautions
- IVF/NG if insufficient PO and/or unsafe to feed due to high WOB
- Continuous pulse-ox if on HFNC or clinically worsening
- Provide O_2 support for sustained sats < 90
- Consider albuterol trial if previously responsive (See ED guideline for trial protocol)

EXCLUSION GUIDELINES
Patients **excluded** from this guideline:
- Cardiac disease
- Chronic lung disease
- Critically ill
- Neurologic impairment
- Immunodeficiency
- Genetic difference

Stable/improving?

Yes

- Wean O_2 to keep sats ≥ 90, use "high-flow holiday" protocol if applicable
- Intermittent pulse-ox spot checks (including while asleep) when not on O_2 support or stable on low-flow support
- Discontinue IVF if taking good PO
- Bulb suction or nasal aspirator PRN
- Begin discharge planning and education

Consider discharge if all completed:
- Off O_2 support
- No apnea > 24 hours
- Taking adequate PO
- RN educate on suctioning at home options

No

Increase respiratory support
- Consider CXR, CBG, albuterol
- Consult with PICU if continues to worsen

Bacterial infection RARE in patients with bronchiolitis. In admitted infants with bronchiolitis and fever who are otherwise WELL-APPEARING consider the following:
- Age ≤ 28 days: Obtain UA, urine culture, blood culture, CBC, Procalcitonin. LP and empiric antibiotics not routinely recommended if: WBC < 15000 and > 5000, ANC < 10000, and Procalcitonin within expected range.
- Age 29–60 days: Obtain urinalysis and urine culture. Blood culture, LP, and empiric antibiotics not routinely recommended.

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ED GUIDELINE — BRONCHIOLITIS (Age < 2 years)

Valley Children's HEALTHCARE

The following are NOT routinely recommended in AAP guidelines:
- Non-targeted viral testing
- 3% saline or racemic epi
- Antibiotics
- Chest Physiotherapy
- Corticosteroids
- CXR

Consider CXR if:
- High WOB or O_2 sat < 90% despite HFNC
- High fever late in illness
- Hepatomegaly or concern for cardiac disease

Any of the following present?
- Apnea (multiple episodes or requiring intervention)
- Persistently high WOB on low-flow cannula and/or after suctioning and after albuterol (if indicated)
- Hypoxia not responding to low-flow cannula
- Elevated pCO_2
- Concern for clinical worsening

Yes → **High-flow nasal cannula**

EXCLUSION GUIDELINES

Patients **excluded** from this guideline:
- Cardiac disease
- Chronic lung disease
- Critically ill
- Neurologic impairment
- Immunodeficiency
- Genetic difference

Any of the following present?
- Apnea (multiple episodes or apnea requiring intervention)
- Persistently high WOB on HFNC
- Concern for impending respiratory deterioration

Yes → Consider admitting to PICU

No → Admit to med/surg observation

Low-flow nasal cannula trial:
- O_2 flow up to 4 L/min
- Consider capillary blood gas

Yes

Step 1: Initial assessment
1. Contact/droplet precautions
2. Suction
3. IVF/NG if poor PO, high WOB, dehydrated
4. Antipyretics if febrile

Any of the following present after step 1?
- High WOB
- O_2 sats < 90
- IVF/NG
- Barrier to outpatient management
- Apnea

No → **Discharge home (follow-up with PCP)**
- Consider albuterol for home use only if "responder"
- RN Educate on suctioning at home options

Once the decision has been made to admit the patient please discuss/defer additional tests/treatments (e.g., CXR) with admitting provider

Consider one-time albuterol trial if:
- Age > 9-12 mo. and personal history of wheezing responsive to albuterol; personal history of atopy; or strong immediate family history of asthma
- *Not indicated if < 9 mo.*

Clinical improvement per provider
(e.g., improved respiratory rate, improvement in WOB, improved O2 saturation)

Yes → **"Albuterol responsive"** Consider albuterol prn

No → **"Non-responder"**
- No further bronchodilators
- Continue on bronchiolitis pathway

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