Hospital Pediatrics

Bronchiolitis: Rest is Best!

NATIONWIDE CHILDREN'S®
When your child needs a hospital, everything matters.

Introduction

In 2019, as part of a multisite effort with other children's hospitals across the country, an interdisciplinary group at Nationwide Children's Hospital initiated a quality improvement campaign to improve the diagnosis and management of routine bronchiolitis in the Emergency (ED), Urgent Care (UC) and lower-acuity Inpatient settings. This initiative, "Rest is Best", was designed to better align care with the AAP's clinical practice guidelines (2014) and is now continuing into its fifth bronchiolitis season. The specific aims are to minimize unnecessary and non-evidence-based interventions (bronchodilators, viral panels and chest radiographs) in the care of routine bronchiolitis patients. Significant progress has been made towards our goals while experiencing no unintended consequences or adverse effects as measured by the percentage of bronchiolitis patients requiring ICU admission and the percentage of patients admitted within 7 days of hospitalization or ED/UC visit.

This introduction will answer questions about the campaign and explain how patients are likely to be managed at NCH. Attached is a handout for patients referred to NCH for evaluation of or admission for bronchiolitis.

What Exactly Does REST is Best Stand for?

R= Reduce unnecessary interventions

E= Educate team about AAP guidelines and families on expectations for care

S= Supportive Care

T= Time= Improvement; have patience

How does NCH define routine bronchiolitis?

- Age 1-24 months
- Primary or Secondary diagnosis of uncomplicated bronchiolitis
- No severe bronchiolitis requiring ICU admission
- No toxic appearance or known associated serious bacterial illness
- No underlying respiratory illnesses (including documented asthma or recurrent wheezing), immunodeficiency or hemodynamically significant congenital heart disease

Diagnosis

During bronchiolitis season diagnosis will primarily be based on **clinical history and exam** (acute respiratory illness associated with nasal congestion, cough and diffuse wheezing, crackles, tachypnea, and/or retractions).

Chest Radiographs

Chest radiographs (CXRs) are not indicated for diagnosis of routine bronchiolitis. Data show that patients with diagnosis of bronchiolitis alone who have a CXR are more likely to receive antibiotics, more likely to receive viral panels and have longer length of stay compared to similar patients with bronchiolitis alone that do not get CXRs.

2023 goal is to reduce the percentage of patients receiving CXRs for routine bronchiolitis to:

<35%
of those admitted

Viral Testing

Routine viral testing is not indicated or particularly helpful in managing routine bronchiolitis. A multisite interview study that included parents of children admitted to NCH with bronchiolitis found that parents did not expect to have viral testing, that the specimen collection process was dissatisfying, and that receiving a diagnosis of "RSV" (rather than "bronchiolitis") can be anxiety provoking for some parents who have heard of and fear "RSV".

Rather than viral panels, targeted influenza and/or SARS-COV-2 testing may be performed based on individual patient risk and potential benefit from treatment.

Treatment

The treatment for routine bronchiolitis patients will be centered on **supportive care** including suctioning, hydration, oxygen, and respiratory support as needed based on presentation and severity.

Medication

Bronchodilators: There is no evidence that routine use of albuterol improves outcomes in the care of routine bronchiolitis. We will not do albuterol administration trials for routine bronchiolitis patients on a regular basis.

2023 goal is to reduce percentage of any albuterol use in routine bronchiolitis patients to:

<30%
of those admitted

Corticosteroids: There is no specific goal regarding inhaled or systemic corticosteroid use associated with this initiative. However, the 2014 AAP guidelines and the CHCO Clinical Care Guidelines for routine bronchiolitis continue to recommend against their use.

For questions please contact:
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Referrals and Consultations

Online: **NationwideChildrens.org**

Phone: **(614) 722-6600 or (877) 722-6220**

Physician Direct Connect Line for 24-hour urgent physician consultations:
(614) 355-0221 or **(877) 355-0221**.

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