Management of Bronchiolitis in Infants

Introduction

Bronchiolitis is an acute inflammatory disease of the lower respiratory tract, resulting from obstruction of small airways. It is initiated by infection of the upper respiratory tract by any one of a number of seasonal viruses, the most common of which is respiratory syncytial virus (RSV).

Previous confusion around the clinical management of infants with bronchiolitis has improved with the creation and integration of clinical practice guidelines. Typical bronchiolitis in infants is a self-limited disease, usually due to an acute viral infection whose clinical course is not generally altered by aggressive evaluations/interventions, use of antibiotics, or other therapies. Most infants who contract bronchiolitis recover without sequelae; however, rates of admissions have increased from 1% to 3% of all infants.

Several studies on the use of clinical guidelines for the management of infant bronchiolitis have shown a reduction in unnecessary resource utilization with a streamlining of medical care for these infants.

Objectives

In the target population, the objectives of this guideline are to:

- decrease the use of unnecessary diagnostic studies;
- decrease the use of medications;
- provide guidance on the use of appropriate respiratory therapy;
- improve the rate of appropriate admission;
- improve the use of appropriate monitoring activities; and
- decrease length of stay.

Target Users

Include, but are not limited to:

- Emergency Medicine physicians, nurses, nurse practitioners, and trainees
- Inpatient physicians, nurses, nurse practitioners, and trainees
- Respiratory Therapists
- Pharmacists
- Patients and families

Clinical recommendations summary table
ED Management Recommendations

Inpatient Management Recommendations

©The Hospital for Sick Children (“SickKids”). All Rights Reserved. This document was developed solely for use at SickKids. SickKids accepts no responsibility for use of this material by any person or organization not associated with SickKids. A printed copy of this document may not reflect the current, electronic version on the SickKids Intranet. Use of this document in any setting must be subject to the professional judgment of the user. No part of the document should be used for publication without prior written consent of SickKids.
Implementation and Evaluation Plan

Implementation Plan

- Education and awareness building by Paediatric Medicine and ED Divisions’ practice champions during resident/fellow orientation, resident educational rounds, and nursing orientation/staff meetings.
- ED and Inpatient Medical Director to communicate any updates in practice to ED and Paediatric Medicine Divisions respectively.

Evaluation Plan

- Ongoing monitoring of bronchiolitis pathway adherence.

Guideline Group and Reviewers

©The Hospital for Sick Children (“SickKids”). All Rights Reserved. This document was developed solely for use at SickKids. SickKids accepts no responsibility for use of this material by any person or organization not associated with SickKids. A printed copy of this document may not reflect the current, electronic version on the SickKids Intranet. Use of this document in any setting must be subject to the professional judgment of the user. No part of the document should be used for publication without prior written consent of SickKids.

Management of Bronchiolitis in Infants
Guideline Group Membership:

1. Julie Johnstone, MD, Staff Paediatrician, Paediatric Medicine
2. Jeremy Friedman, Interim Paediatrician in Chief, Paediatric Medicine
3. Shawna Silver, MD, Staff Paediatrician, Paediatric Medicine
4. Suzanne Schuh, MD, Staff Pediatrician, Emergency Medicine
5. Olivia Ostrow, MD, Staff Pediatrician, Emergency Medicine
6. Marie-Pier Lirette, MD, Paediatric Emergency Fellow, Emergency Medicine
7. Gail Annich, MD, Staff Intensivist, Paediatric Intensive Care Unit
8. Diane Soares, RRT, Clinical Educator Specialist, Respiratory Therapy
9. Jennifer Thiele, RRT Pediatrics
10. Noel Wong, Team Leader Quality Management
11. Andrea Boyesen, RN, Team Leader Quality Management, Emergency Medicine
12. Fatma A. Rajwani, PT, Quality Management
13. Maria Jose Conejero Muller, MD, Paediatric Fellow, Paediatric Medicine
15. Larissa Shapka, MD, Senior Paediatric Resident, Paediatric Medicine
16. Jason Macartney, RRT, Clinical Manager Respiratory Therapy
17. Lynn Mack, Clinical Manager General Paediatrics

Internal reviewers:

1. Eyal Cohen, Staff Paediatrician, Paediatric Medicine
2. Sanjay Mahant, Staff Paediatrician, Paediatric Medicine
3. Carolyn Beck, Staff Paediatrician, Paediatric Medicine
4. Michael Weinstein, Staff Paediatrician, Paediatric Medicine

References


Attachments:

Clinical Recommendations_Aug 2021.pdf
Discharge Checklist Bronchiolitis_June 29.docx
ED pathway_Aug 2021.pdf
inpatient pathway_Aug 2021.pdf