

Common Respiratory Illnesses in Children: Tip Sheet for Family Doctors

	Causes	Diagnosis	Signs	Management	Red Flags
URTI (upper respiratory tract infection)	Viral	Clinical – NPS not necessary	Sneezy, stuffy nose	Supportive treatment No role for oral/inhaled/intranasal steroids or antibiotics	
Croup	Acute-onset upper airway obstruction secondary to viral infection	Clinical – chest/lateral neck x-ray not necessary	Barky cough with or without stridor Usually ages 6 months to 3 years	Oral dexamethasone 0.6 mg/kg x 1 No antibiotics	Rule out: bacterial tracheitis, epiglottitis, retropharyngeal abscess, anaphylaxis, foreign body aspiration Note: toxic appearance, drooling, dysphasia is NOT croup ! Emergency Department if: <ul style="list-style-type: none"> • Toxic-appearing • Stridor or WoB (work of breathing) at rest, biphasic stridor • Drooling or dysphagia • Lethargy or distress
Bronchiolitis (viral lower respiratory tract infection)	Can be caused by any virus, including RSV	Clinical – x-rays only if severe or alternate diagnosis suspected; labs/NPS not necessary	Low-grade fever, cough and rhinorrhea, wheeze, crackles with or without respiratory distress Usually <2 years of age	Supportive treatment, including hydration, anti-pyretics. Nasal suctioning to support feeds. No evidence for Ventolin, steroids, antibiotics or antivirals	Rule out: asthma, pneumonia, foreign body aspiration Higher risk for severe disease: <ul style="list-style-type: none"> • Infants born prematurely (<35 weeks gestation) • <3 months of age at presentation • Hemodynamically significant cardiopulmonary disease • Immunodeficiency ! Emergency Department if concerns about: <ul style="list-style-type: none"> • Respiratory rate • WoB (work of breathing) • O2 saturations • Mental status • Apneas • Hydration

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Bacterial pneumonia	Bacterial	Chest x-ray – focal lobar consolidation or worse (parapneumonic effusion, empyema, abscess, etc.). Atypical pathogens can have bilateral infiltrates NPS, labs not indicated for outpatients No repeat chest x-ray after illness if clinical improvement	High-grade fever, cough, focal crackles (NOT wheeze), appears “sicker”, with or without respiratory distress	Amoxicillin 90 mg/kg/day divided TID x 5 days for uncomplicated community-acquired bacterial pneumonia. Note: Atypicals – treatment with macrolides is controversial, as it will typically resolve without treatment. Treatment with macrolides may help with chronic cough.	! Emergency Department if concerns about: <ul style="list-style-type: none"> • Respiratory rate • WoB (work of breathing) • O2 saturations • Mental status • Apneas • Hydration
Asthma	Personal or family history of atopy Common triggers for exacerbations: infection, physical activity, allergens, cold air, pollution, poor compliance to asthma treatments	Clinical – chest x-ray not required PFTs (pulmonary function tests) recommended for older children	Recurrent wheeze that is responsive to bronchodilator treatment	Ventolin, with or without inhaled corticosteroids (ICS) depending on severity, and oral steroids if acute exacerbation Exacerbation: <ul style="list-style-type: none"> • Ventolin 2-4 puffs q4h PRN (or ICS-Long acting beta agonist (LABA) for teens) – use regularly q4h during an exacerbation. • Oral corticosteroids: dexamethasone 0.3-0.6 mg/kg x 1-2 days; prednisolone 1 mg/kg x 3-5 days. • No evidence for increasing ICS during illness or short-term; no evidence for intermittent use of ICS. Controller therapy: <ul style="list-style-type: none"> • Avoid triggers and manage comorbidities. • Have written asthma action plan. • Use aerochambers for metered dose inhalers (MDIs) and confirm technique. • Ensure compliance in ICS use (4-6 weeks for any effect; monitor for side effects). 	

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Post-viral cough	Follows viral infection	Clinical, and consider other causes of chronic cough (e.g., asthma, CF, post-nasal drip, GERD)	Can last 4-6 weeks following viral infection	Supportive treatment: <ul style="list-style-type: none"> • Avoid exacerbating factors (smoke, allergens, etc.). • Avoid OTC cough suppressants, esp. in <6 years of age. • Use humidifiers. • May use honey if one year or older. Manage patient/parent expectations	Investigate if associated with other features or >6 weeks in duration in otherwise healthy children

REFERENCES

Acute management of croup in the emergency department (Canadian Paediatric Society)

Bronchiolitis: Recommendations for diagnosis, monitoring and management of children one to 24 months of age (Canadian Paediatric Society)

Uncomplicated pneumonia in healthy Canadian children and youth (Canadian Paediatric Society)

Diagnosis and management of asthma in preschoolers (Canadian Thoracic Society and Canadian Paediatric Society)

Diagnosis and management of asthma in preschoolers, children and adults (Canadian Thoracic Society)

Managing an acute asthma exacerbation in children (Canadian Paediatric Society)

Inhaled daily dose of corticosteroids (ICS) for asthma therapy in children (Managing an acute asthma exacerbation in children, Acute Care Committee, Paediatric EM Section)

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