Bronchiolitis

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1 Bronchiolitis has resurged since COVID-19–related physical distancing measures have been relaxed

Bronchiolitis is a viral lower respiratory tract infection, leading to small airway inflammation and edema, and is usually caused by respiratory syncytial virus.[1] Before the COVID-19 pandemic, in Ontario, 2.6/100 children younger than 1 year had a visit to an emergency department for bronchiolitis.[2] Incidence decreased during 2020 owing to masking, school closures and physical distancing measures. However, when those were relaxed, many countries experienced off-seasonal resurgence and more presentations of children older than 1 year.[3]

2 Infants typically present with symptoms of viral respiratory infection; neonates may present with apneas or cyanosis only

Most children present with low-grade fever, tachypnea, chest wall retractions and reduced oral intake, with crackles and wheeze bilaterally.[1,4] Risk factors for severe bronchiolitis include cardiorespiratory, neuromuscular or immunodeficiency comorbidities; age 3 months or younger; and prematurity.[1,4] Bacterial pneumonia should be considered if fever is 39°C or higher or there are unilateral chest signs on auscultation.[4]

3 Investigations are not recommended routinely

Nasopharyngeal swabs do not alter management but may be used to cohort children in hospital.[1] Chest radiographs and blood tests are not indicated unless the presentation is severe (i.e., requiring intensive care) or the diagnosis is unclear.[1,4] Children should be referred for possible admission if there is moderate increased work in breathing, coughing with sustained vomiting, signs of dehydration, or oxygen saturations less than 90% in room air.[1,4]

4 Treatment remains supportive

Oxygen should be administered to maintain saturations at 90% or higher, including while the patient is asleep. Bronchodilators, inhaled epinephrine, antibiotics, hypertonic saline and corticosteroids are not recommended.[1,4] The patient's nares should be suctioned superficially if excessive secretions impede breathing or feeding.[1,4] Compared with intravenous fluids, nasogastric tube hydration avoids cannulation, allows enteral nutrition and reduces irritability due to hunger.[5]

5 Parents should be advised that cough may persist

Although symptoms peak between 3 and 5 days from onset, there is no association between day of illness at admission and hospital length of stay.[6] Cough will usually resolve within 2 weeks, but about 10% of children may have persistent cough for 3 weeks or longer.

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