



# Targeted strategies are needed to prevent childhood asthma

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**Strategies that effectively target specific bronchiolitis endotypes will lead to better treatment modalities and bring us closer to our ultimate aim of childhood asthma prevention** <https://bit.ly/3lxcqcb>

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In this issue of *European Respiratory Journal*, RAITA *et al.* [1] examined nasopharyngeal samples from 244 infants less than 1 year of age who were hospitalised with first-time respiratory syncytial virus (RSV) bronchiolitis in the USA and their association with asthma development by 5 years. The authors measured RSV (the most common viral pathogen causing bronchiolitis) and human rhinoviruses (RV) and examined metatranscriptomic profiles to determine whether specific endotypes of bronchiolitis may be associated with later development of asthma. This is an important research priority, as bronchiolitis represents a major cause of infant hospitalisation and mortality worldwide. Most recent estimates suggest that there are more than 3 million cases of RSV hospitalisations and approximately 60 000 deaths in children less than 5 years of age each year [2]. Moreover, there is significant phenotypic variation in bronchiolitis presentation [3] and there are no objective clinical markers to indicate which children may be at increased risk of asthma. This is important as it would guide future management options and surveillance strategies. The interactions between viruses (such as RSV and RV) and resident bacteria might also influence asthma risk. As societies emerge from the COVID-19 pandemic and associated public health measures, a reduction in transmission of other respiratory pathogens such as RSV has resulted in primary infection occurring at an older age [4]. The longer term immunological effects of this and the potential impact on asthma outcomes are yet to be determined. A recent study showed that asthma risk was higher in children whose first RSV infection occurred at 6–23 months, as compared to 0–6 months [5]. Despite the global burden of RSV, no vaccines are currently widely available and treatment options remain limited. Studies that provide a framework to develop novel strategies to combat this common paediatric problem are therefore urgently needed.