

## **Viral Upper Respiratory Tract Infections in Children: Prevalence, Epidemiology and Risk Management**

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Viral Upper Respiratory Tract Infections (VURTI) are infections of the conducting part of the respiratory system with viral etiology. VURTIs constitute for 50% of doctor visit and has a large burden on community and a high cost to society as it is responsible for majority of absenteeism from schools and work. URTIs are caused by over 200 viruses including: rhinovirus, coronavirus, parainfluenza virus, respiratory syncytial virus, and influenza type A and B; and are primarily responsible for the most common VURTIs: Common Cold (CC) and Influenza. The purpose of this review is to describe prevalence and epidemiology of VURTI, develop risk management strategies and recommendations for adoption and implementation with main focus on CC and Influenza A and B. Overview: Prevalence/ Epidemiology: VURTIs are transmitted via person to person contact and have been observed to have more prevalence during fall and winter seasons. Nevertheless, some studies show a high prevalence of VURTIs regardless of season. Children below 5 years of age have been seen to have the highest morbidity in regards to VURTI. VURTIs and respiratory infections in general are more prevalent in low and middle income countries (LMICs) compared to high income countries. Georgia's estimates show a better outcome regarding to VURTIs prevalence compared to some post soviet union countries.

Common Cold (CC) syndrome and Influenza (A and B) are the most common forms of VURTIs. The distinguishing symptom between CC and influenza is high fever, especially sudden onset of it, also expressed malaise, headache and cough. While CC is characterized by sneezing, coughing, running nose, sore throat, watery eyes, and nasal congestion. In 50% cases, symptoms of CC are diminished within 6 to 9 days without medication intake. Therapy for CC includes bed rest, fluid intake and symptomatic medications. Risk Management: To avoid a spread of virus the following issues are provided to be taken into consideration: persons movement affected with VURTIs should be limited and hand hygiene should be promoted for in-practice implementation. Overcrowding should be avoided especially during winter and fall, and nose and mouth mask should be used whenever being in public spaces. Also, proper way of covering the mouth during sneezing should be taught and advertised. It is important for the general public to understand that self-treatment with antibiotics does not affect outcome of illness, rather increases the antibiotic resistance. Conclusion: Public awareness about VURTI's is essential for its epidemiology, prevention and management. In Georgia, there is effective medical management of VURTIs with little preventive measures taught, as the population with the high burden of VURTIs cannot take care of themselves. Therefore, collaborative efforts between the government and health institutions should be geared towards educating parents, care providers and school administration on preventive measures to take to reduce the occurrence and spread of VURTIs. Georgia has a real chance to be a model country in European Region with improved outcomes through advertising and promoting hygiene together with other preventive activities as well.

**Abbreviations:** VURTI-Viral Upper Respiratory Tract Infection, CC-Common Cold.

**Key Words:** Viral Upper Respiratory Tract Infection, Common Cold, Influenza.