

Factsheet Severe Respiratory viruses



What

The group of respiratory viral pathogens is quite heterogeneous and includes viruses classically associated with mild common colds, as well as viruses responsible for seasonal influenza and those that may cause severe airway infections. Among others, this last group comprises the avian influenza virus (bird flu), the Middle East respiratory syndrome coronavirus (MERS-CoV), the SARS coronavirus (severe acute respiratory syndrome), and COVID-19

Who

Respiratory viruses that cause upper or lower airway infections are found worldwide. They are primarily transmitted through direct or indirect contact with an infected person or contaminated surface, by small droplets produced when someone sneezes or coughs, or by larger droplets requiring close contact with an infected person. Common risk factors for increased severity of infection mainly include underlysing chronic respiratory diseases, a disturbed immune function. malnutriotion, and cigarette smoking. Seasonal small outbreaks, larger epidemics or even pandemics may occur.

Where and when

Respiratory viruses occur world wide. Viruses with distinct seasonal variation typically cause more systemic symptoms than other respiratory viruses. Seasonal outbreaks, larger epidemics, or even pandemics may occur.

Prevention

For some viruses, such as seasonal influenza, vaccines are available, although efficacy may vary. However, for novel viruses, vaccine development—if possible at all—takes considerable time. Guidance on personal protective measures and patient isolation may be stricter depending on the virus in question. Travelers to countries where avian influenza is endemic should avoid contact with poultry, and are advised to consult their travel doctor for the latest advice.



Treatment

For many viruses that cause upper or lower airway infections, no targeted treatment exists, so management primarily consists of supportive care. For specific viruses, such as influenza, antiviral agents may be prescribed for people with severe disease requiring hospitalization or those at high risk for complications.

Symptoms

The clinical presentation of a respiratory viral infection varies from person to person and may also differ between viruses, ranging from asymptomatic infection to life-threatening disease. The incubation period generally is several days. Commonly reported symptoms include fever, malaise, headache, sore throat, runny nose, muscle pain, cough, and shortness of breath. Non-respiratory symptoms, such as diarrhea, may also occur.

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In case of infection

It is not possible to provide general advice on what to do in case of infection. Factors such as individual health characteristics, symptom severity, the specific virus involved, and public health considerations should all be taken into account. Most respiratory viruses are capable of causing reinfection after renewed exposure; however, subsequent infections with the same or similar viruses are generally milder and of shorter duration.