



Who

Respiratory viruses causing upper or lower airway infection occur worldwide. They are mainly transmitted by (in)direct contact with an infected person or a contaminated environmental surface, or by small droplets produced after sneezing or coughing, or large droplets that require close contact with an infected person.



What

The group of respiratory viral pathogens is quite heterogeneous and includes viruses classically associated with mild common cold, but also the viruses responsible for seasonal influenza and viruses that may cause severe airway infection. Among others, the 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.



Where and when

Viruses with marked seasonal variation typically cause more systemic symptoms than other respiratory viruses. Common risk factors for increased severity of infection mainly include underlying chronic respiratory diseases, a disturbed immune function, malnutrition, and cigarette smoking. Seasonal small outbreaks, larger epidemics, or even pandemics may occur.

Prevention

For some viruses like seasonal influenza vaccines are available, although efficacy may vary. For novel viruses however, vaccine development if at all possible takes a considerable time. Advice regarding the use of personal protective measures and isolation of patients may be more strict depending on the concerning virus. Travelers to countries where avian influenza is endemic should avoid contact with poultry. Please consult your travel doctor as actual outbreak information may change rapidly.



Treatment

For many viruses that cause upper or lower airway infection no directed treatment exists and management consists of supportive care. For specific viruses like influenza, antiviral agents may be prescribed to treat people with severe disease requiring hospitalization or who are at high risk for complications.

Symptoms

Clinical presentation may for the same virus vary from person to person and may also differ between viruses from asymptomatic infection until life threatening disease. Examples of commonly reported symptoms are fever, malaise, headache, sore throat, running nose, muscle pain, cough, and shortness of breath. Non-airway complaints like diarrhea may also be reported.



In case of infection

To provide a general advice on what to do in case of infection is not possible. Among others, individual health characteristics, the severity of symptoms, the responsible virus, and public health issues should be taken into account. Most of the respiratory viruses are capable of reinfection after renewed exposure. However, subsequent infections with the same or similar agents are generally milder and of shorter duration.