Human rhinovirus infection – A frequent cause of the common cold

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Introduction

Rhinoviruses are the most common viral infectious agents in humans and are the predominant cause of the common cold. Rhinovirus infections proliferate in temperatures between 33–35°C, the temperatures found in the nose.

Most people get colds in the winter and spring, but it is possible to get a cold any time of the year. Symptoms usually include sore throat, runny nose, coughing, sneezing, watery eyes, headaches and body aches. Most people recover within about 7-10 days. However, people with weakened immune systems, asthma, or respiratory conditions may develop serious illnesses, such as pneumonia.

Signs and symptoms

Signs and symptoms include the following:
- Nasal dryness or irritation - May be the first symptom
- Sore throat or throat irritation – Common and bothersome initial symptom
- Nasal discharge, nasal congestion, and sneezing – Intensify over 2-3 days
- Headache
- Facial and ear pressure
- Loss of sense of smell and taste
- Cough (30% of infected individuals)
- Hoarseness (20%)
- Vomiting after coughing
- Irritability or restlessness
- Fever (unusual; when present, typically low grade)

Age-related differences in presentation of symptoms are as follows:
- Infants and pre-schoolers – Fever more likely, often 38-39°C
- Infants and toddlers – May display only nasal discharge
- School-aged children - Usually complain of nasal congestion, cough, and runny nose

Patients may limit their activity during the course of the infection, with clinical improvement occurring 48-72 hours after the onset of symptoms. Patients can reassured that the usual course of illness is 6-10 days.

Treatment

Rhinovirus infections are predominantly mild and self-limited; treatment is therefore generally focused on symptomatic relief and prevention of person-to-person spread and complications.

Treatment options vary depending on the age of the patient and include rest, adequate hydration and over-the-counter...

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medicines for symptomatic relief. Antibacterial agents are not effective unless bacterial super-infection occurs.

For children, it is recommended to treat symptoms according to the most bothersome symptom with single-ingredient medicines e.g. paracetamol for pain and fever. Furthermore, children younger than 6 years of age should preferably receive treatment with analgesics, cough suppressants, decongestants, or antihistamines only when recommended and supervised by a doctor. In addition, promethazine (found in several cold medicines) is contra-indicated for use in children under 2 years of age in South Africa,

Patient education: How to protect yourself and others

Patients should be encouraged to wash their hands frequently with soap and water to prevent the spread of secretions. Wash them for 20 seconds, and help young children do the same. If soap and water are not available, use an alcohol-based hand sanitizer. Viruses that cause colds can live on your hands, and regular handwashing can help protect you from getting sick.

Contact with hands is a major route of transmission and in addition, other measures should be taken to control infections, such as avoiding finger-to-eye and finger-to-nose contact and coughing and sneezing into the crook of the elbow. Viruses that cause colds can enter the body when you touch your eyes, nose and mouth with unwashed hands.

Frequent colds are common at certain times of the year and also in young children, especially if they attend daycare or preschool. Frequent self-limited colds do not indicate a problem with a child’s immune system and do not warrant antibiotic treatment.

It is advisable to stay away from people who are sick (avoid hugging, kissing or shaking hands) and to stay at home while you are sick.

If you have a cold, you should also follow these tips to prevent spreading it to other people:

• Cough and sneeze into a tissue then throw it away, it is important to completely cover your mouth and nose
• Wash your hands after coughing, sneezing, or blowing your nose
• Disinfect frequently touched surfaces, and objects such as toys and doorknobs

There is no vaccine to protect you against the common cold.

Conclusion

Sore throat and runny nose are usually the first signs of a cold, followed by coughing and sneezing. Most people recover in 7-10 days. You can help reduce your risk of getting a cold by washing your hands often and avoid touching your face with unwashed hands.

Common colds are the main reason that children miss school and adults miss work. There are millions of cases of the common cold each year. Adults have an average of 2-3 colds per year, and children have even more.

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Bibliography


