

Common cold

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Although Sir William Osler said that the only way to treat the common cold is with contempt, it still remains the most common infectious disease that FPs will see, and FPs need to know how to deal with patients who have colds.

On a rainy November day, Mrs Arena brings in Claudio, her 3-year-old son. She reports that he is miserable and that she has been up all night. "He has a terrible cold, Doctor," she says. "I'm very worried." Claudio is an only child; his birth was normal; and his immunization record is complete. He has attended the clinic 8 times so far in addition to immunizations and well-baby check-ups. The record shows 3 colds or upper respiratory tract infections, 2 undiagnosed rashes, 1 episode of "bronchitis" treated with antibiotics, 1 bruised forehead (no sequelae), and 1 dog bite (no sequelae).

Epidemiology and symptoms

On average, adults get 4 to 6 colds per year, while children get 6 to 8 of them. Colds cause about 500 FP visits per 1000 patients per year.¹ Because colds occur all year round, the total burden of illness caused by them is greater than the burden caused by seasonal influenza. Colds account for 40% of all time lost from jobs and 30% of all absenteeism from school.² There are more than 200 viruses, continuously changing, that are associated with the common cold; coronaviruses are generally associated with more severe symptoms than are rhinoviruses. A British study of people older than 60 years of age who had colds was able to isolate a causative virus in only 43% of patients,³ and Finnish researchers were able to isolate viruses from 138 of 200 university students with colds.⁴ Colds occur all year round but are more common in the winter months.^{2,5}

Definitions of the common cold are rather vague, but colds have the following features:

- feeling generally mildly unwell ("indisposed"),
- a sensation of chills (which means feeling cold when the core temperature is either normal or even raised), and
- sniffles (excessive nasal discharge above the normal physiologic level).

These are the main symptoms that people experience. Perhaps the chills people feel (a kind of oversensitivity to the ambient temperature) are the reason why the illness is called *the cold*.

Everyone has had the illness and so it is not hard to recognize the symptoms. There are, however, many variations on the theme. Usually the infection starts in the nasal cavity mucosa (the typical common cold), but

it might start in the throat, the sinuses, the ears, or the bronchi, in which case the first symptom could be a sore throat, pain in the facial bones, earache, or cough. Soon after, with the advent of the streaming nose that accompanies the generally chilled feeling, we realize the constellation of symptoms is a cold.

From the history of sniffles and the obvious presence of greenish nasal discharge, it seems likely that Claudio has a common cold. However, being aware that other conditions can mimic the cold, and because of Mrs Arena's concerns, you carefully expand the history and examine the child.

Alarm symptoms. Alarm symptoms include high fever, meningococcal or other rash, neck stiffness, or untypical lassitude in the child.

Alarm signs. Alarm signs include rashes, meningism, loss of muscle control, undue sleepiness, or typical signs of otitis media, sinusitis, or chest pathology (crepitations or rhonchi).

There is good skin turgor. Claudio's temperature is 36.9°C; his pulse is 80 beats per minute; and his respiratory rate is 22 breaths per minute. He fights your examination and he seems alert as he follows your flashlight. His neck is not stiff. His eardrums are slightly injected but have a normal light reflex. There are several small palpable neck glands, but findings from his throat examination are unremarkable. Percussion and auscultation of his chest produce normal results. He does not cough while you are examining him.

Making the diagnosis

Although tremendous academic effort has been made to determine sign-and-symptom combinations that will help to firm up the diagnosis of conditions like otitis media, streptococcal sore throat, bacterial sinusitis, and community-acquired pneumonia,⁶⁻¹⁰ no such literature exists for the diagnosis of the common cold.

Fortunately, in the absence of alarm features, the diagnosis of a cold is easily made. The tricky part is finding out what Mom is worried about and what she expects from the visit. You ask Mrs Arena why she is so worried.

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Mrs Arena has a second cousin whose child died of leukemia at 4 years of age. She wonders whether this could be the start of something serious. She knows that antibiotics do not work for the common cold, but she wonders if there is a medicine that would help Claudio get better more quickly, as they are due to attend a family wedding in 5 days.

You know that although antitussive medicines can relieve coughs in adults and schoolchildren,¹¹ there is far less evidence that they work in preschoolers. There is similarly little support for the use of antihistamines, which can make small children dangerously drowsy.¹² Nasal decongestant drops might relieve symptoms in adults, but there is no evidence for their use in small children.¹³ Similarly, the evidence for using zinc,¹⁴ echinacea,¹⁵ and vitamin C is also very weak.¹⁶ Mothers around the world have traditionally recommended humidification of the environment, plentiful fluids, gargles, nose drops, and bed rest. The only one of these measures that has been shown to be slightly effective (in a systematic review) is steam inhalation.¹⁷

Although one trial suggested that zinc lozenges could cut the duration of a cold by half,¹⁸ subsequent studies have not confirmed this.¹³

You tell Mrs Arena that your careful examination reveals no sign of anything serious or dangerous, but that if Claudio does not improve soon, you will see him again. You tell her that the comfort measures she is already using are fine, but that unfortunately there is no medicine that will clear up a cold quickly.

Before they leave, Mrs Arena asks about using multivitamins or a widely advertised ginseng extract to prevent further colds. You advise her that, as far as you know, taking multivitamins does not prevent colds, and that the studies on ginseng have been on adults, not children.¹⁹ 🌿

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Competing interests

None declared

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