



National Prescribing Service Limited

Australia's peak, independent, education and information provider about medicines

Fact sheet

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The problem with antibiotics and common colds

History

Before the discovery of antibiotics in the 1930s, virtually any cut or scratch that became infected was potentially life threatening. Bacterial infection caused more than half of all deaths. In the late '60s, the success of antibiotics in treating bacterial infections led the US Surgeon General to declare to the US Senate that it was time to "...close the books on infectious diseases."

Now, more than 30 years later, certain strains of infectious bacterial diseases that were once easily treated with antibiotics are now resistant to most antibiotics.

Antibiotics continue to be important in the treatment of many infections, in fact they can be life-saving. The trick is to keep them for when they are really needed. If antibiotics are over-used resistance develops and we won't have effective treatment for life-threatening infections.

Why don't antibiotics help a common cold?

Antibiotics only kill bacteria and the common cold is not caused by bacteria. Viruses cause common colds.

What role do antibiotics play?

Antibiotics are the group of medicines used in the treatment of infection caused by bacteria. Antibiotics do not have any effect on viral illnesses such as colds and flu. Antibiotics can be life saving when used appropriately, but should not be used unnecessarily or excessively.

Antibiotics may be helpful in treating respiratory illnesses not caused by viruses. These include middle ear infection (otitis media), which can cause severe earache in children, severe tonsillitis and sinusitis, which may cause facial pain and a thick discharge from the nose. However, these illnesses tend to get better by themselves, and antibiotics are needed only in some cases.

What are the possible side effects from using antibiotics?

Antibiotics may cause side effects like stomach upsets, diarrhea, thrush and sometimes allergic reactions.

What is the difference between viruses and bacteria?

Viruses are tiny infectious germs that live within the cell. Because they are so small, antibiotics do not work against viruses. Bacteria are larger infectious germs and live outside the cell.

What is antibiotic resistance?

Antibiotics are prescribed for infections caused by bacteria. Sometimes bacteria mutate so that the antibiotic no longer kills them. Multiple drug resistance occurs when bacteria become resistant to more than one antibiotic. Of concern is the result of recent studies¹ in Europe that show:

- a change in prescribing patterns from the narrow-range antibiotics to the new broad-range antibiotics
- countries with greater use of antibiotics have higher levels of antibiotic resistance

Every winter National Prescribing Service Limited (NPS) runs the national health campaign *common colds need common sense*. This campaign encourages people to follow simple advice to correctly manage the common cold, without the use of antibiotics: take it easy, relieve the symptoms and see your doctor or pharmacist if the cold gets worse. For more information visit www.gottacold.com

NPS is an independent Australian organisation for Quality Use of Medicines, funded by the Australian Government Department of Health and Ageing.

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Reference: 1. Goossens H, Ferech M, Vander Stichele R, Elseviers M, Lancet. 2005 Feb 12;365:579-87.