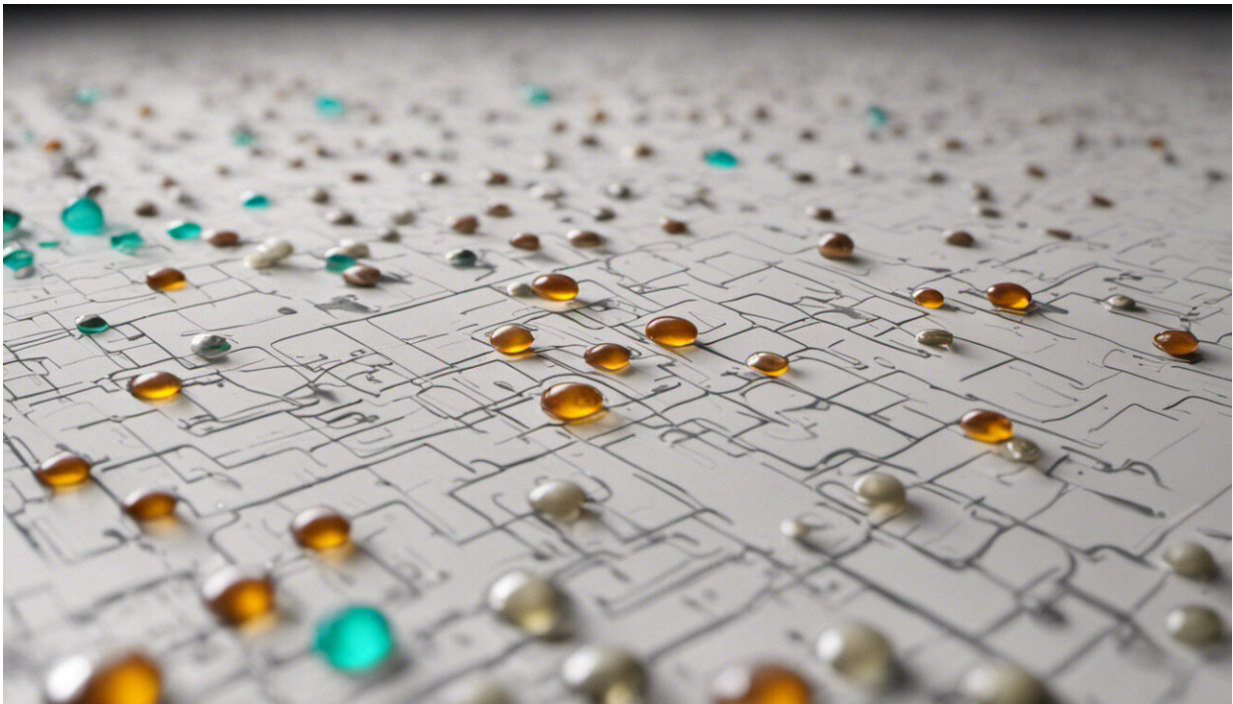


Keep taking the tablets—three reasons to stay the full antibiotics course

August 8 2017, by



Credit: AI-generated image ([disclaimer](#))

A recent [commentary](#) published in the *British Medical Journal* reignited the debate on whether patients should stop antibiotics when they feel better rather than following instructions to finish the course.

So why all the fuss? And is it safe to stop early?

The reason for the fuss is that the world is facing a public health crisis because resistance to [antibiotics](#) is [on the rise](#).

As to the second question: based on current evidence, no it's not.

But first to the fuss. Bacteria that were once easily treated with antibiotics are now increasingly able to resist their action so that [they no longer work](#). The situation has become so serious that we are literally [running out of antibiotics](#) that still work for many common bacterial infections such as [urinary tract infections](#) and infections acquired in hospital. For some, no antibiotics are left that will kill the bacteria causing the infection.

This has profound implications for the treatment and prevention of common bacterial infections, particularly in patients more likely to get them. These include people undergoing surgery and those whose immune systems are weakened by chemotherapy, HIV, diabetes, chronic diseases and transplantation. It puts these groups at greater risk of severe illness and death.

As to why you should finish the course: there are three reasons why you should, based on the fact that one size doesn't fit all and that a subjective feeling of "being better" doesn't necessarily mean that the infection is adequately treated.

Firstly, not all bacterial infections are created equal. Based on our current knowledge, some infections caused by bacteria can be treated with short courses of antibiotics, but others have a much higher return of the infection if not treated with a longer course. Secondly, not all antibiotics are created equal. There are a number of different types which doctors use to treat the same types of infection, and some require longer courses than others.

The third reason is science isn't up to speed on how long courses should be. This is because knowledge about how particular antibiotics deal with particular bacteria in particular infections, and how those bacteria respond, is work in progress.

Concern has also been raised that stopping early may lead to people [keeping unused antibiotics](#) to use in the future without direction by a doctor or nurse, or sharing them with family or friends when they are sick. Each of these scenarios could lead to harm to the person and increase resistance rates through unnecessary use.

Closing the gaps

To address the crisis of increasing bacterial resistance, we need to understand and act on the main factors that are driving unnecessary use of antibiotics. About [50% of all antibiotics](#) are estimated to be unnecessarily prescribed.

Chief among these drivers is prescriptions given to people who go to a doctor with symptoms like a cold or "flu". These illnesses are caused by viruses, against which antibiotics have no effect. Simple pain killers or decongestants and cough mixtures are all that are needed.

The misuse of antibiotics is partly driven by people asking for them from doctors for the wrong reasons. A World Health Organisation [study](#) done in 2015 showed that South Africans believed that antibiotics could treat viral infections such as colds, flu, measles and HIV, as well as ailments like body aches and headaches.

So where else can we make gains at decreasing the use of antibiotics, other than preventing unnecessary use?

One area is in how long we treat bacterial infections that *do* need

antibiotics.

This is still an area of study, with new developments, insights and breakthroughs expanding our understanding all the time.

Wherever possible, treatments prescribed by doctors should be based on evidence from randomised controlled [clinical trials](#) that prove the treatment works and is safe.

Doctors treating patients with different types of bacterial infection have long suspected that we are using antibiotics for too long a duration. This has generated a number of excellent trials proving that shortening the duration of treatment has the same effect as longer treatment, and is safe. For example, a [recent study](#) showed that treatment of infection of the bones of the spine can safely be reduced from 12 to six weeks.

Similarly, doctors used to treat pneumonia for one to two weeks with antibiotics. But we now know that five days is sufficient for most types of pneumonia, and some studies are starting to show that three days may even be sufficient.

We need more of these studies across the whole range of bacterial infections for which antibiotics are used to inform our practice, and to safely shorten the number of days antibiotics are taken.

So, is there good trial-based evidence to prove that stopping antibiotics when you feel better rather than finishing the course is safe and effective?

Missing evidence

The answer is no. The evidence we have is largely anecdotal, based on the fact that if you ask almost anyone, they'll tell you that they don't

generally finish a course of antibiotics.

But remember that an extremely large percentage of people taking the antibiotics didn't have a bacterial infection in the first place. And we also don't know how many of those who did have a bacterial infection – and therefore needed an antibiotic – had a return of their symptoms which then required more antibiotics.

Trials need to be done that focus on two groups (randomly chosen). Both would be made up of people who have a common bacterial [infection](#). But one would be made up of people who had completed the course, the other with [people](#) who have stopped because they were "feeling better". What "feeling better" actually means would need to be pinned down. Although hard to perform, once we have the evidence from such studies, we will be in a position to give clear advice.

Until then, despite the opinion of many experts that stopping antibiotics when the patient feels better may reduce the overall use of antibiotics and therefore reduce development of resistance in a safe way, this advice remains just expert opinion – the lowest form of evidence.

Reopening the debate on how long an antibiotic should be given is a good thing. But this is a question that can only be answered through the proper scientific method of carefully constructed clinical trials.

Until then, stopping antibiotics when you feel better is not ready for prime-time. And could do you more harm than good.

This article was originally published on [The Conversation](#). Read the [original article](#).

Provided by The Conversation

Citation: Keep taking the tablets—three reasons to stay the full antibiotics course (2017, August 8) retrieved 24 April 2024 from

<https://medicalxpress.com/news/2017-08-tabletsthree-full-antibiotics.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.