

# Do you know the alarm bell for the antibiotic era is near the ring?

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## ABSTRACT

Antibiotic resistance has become a global issue, with bacteria that have developed resistance killing thousands of people annually worldwide. This article aimed to learn about the post-antibiotic era. It found that we are now in the post-antibiotic era, which means no new antibiotics have been discovered, and the post-antibiotic era is coming soon, sadly.

**Keywords:** Infection, Bacteria, Antibiotic, Resistance, Post-antibiotic era

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### Introduction

Antibiotics have been part of human history since ancient times (1). In the past, people thought that infectious diseases had been eradicated, yet antibiotics have saved countless individuals. Effective broad-spectrum antibiotics constitute the foundation of most current medical advancements, including state-of-the-art procedures and the treatment of cancer, transplant, and neutropenic patients (2). Long before the contemporary era of antibiotics, genes that cause antibiotic resistance were already prevalent (3). The expression "post-antibiotic era" describes a time in the future when numerous common infections will once again be fatal without treatment (4). According to a World Health Organization (WHO) report released, the 'post-antibiotic era' is coming nearly. The group claims that a monitoring system should be put in place to keep an eye on the declining efficacy of antibiotics and other antimicrobial agents, which is a global issue (5). Developing a plan to preserve the current antimicrobials is critical. In order to do that, we can, among other things, improve the ones that are already in place, find new antibiotics, uncover long-standing, supposedly harmful compounds, increase antibiotic stewardship, employ cross-sectoral multidisciplinary approaches, inform the public and medical professionals, and use fewer antibiotics in agriculture and livestock (6,7). There are several causes for the antibiotic resistance crisis, such as overdosing, inappropriate prescriptions, antibiotics being highly used in the livestock sector to prevent illnesses and stimulate growth, and inappropriate disposal of expired or unused antibiotics in nature or in sewage systems. Limited availability of novel antibiotics (8, 9, 10,11). Scientists have discovered bacteria in China that are resistant to all known treatments, including the last-resort medication colistin, raising the possibility that the world is on the edge of a "post-antibiotic" period. For years, scientists have warned of an "antibiotic disaster" that would push medicine backward to the ancient past, with simple illnesses turning deadly and antibiotic-dependent surgeries and cancer treatments at threat. We might have gotten closer to this terrible situation with this most recent development. In recent years, there has been a sharp rise in multi-drug resistance (12)

### What can we do about this issue?

Is there nothing to be done? The WHO claims that there are strategies for fighting the spread of antibiotic resistance. The World Health Organization recommends patients not depend on antibiotics when they may not be necessary. Antibiotics should only be taken as directed by a licensed healthcare provider. Even if you feel better, always finish the entire course. Never share your antibiotics with others and never use leftovers (13). Finally, by improving hygiene, providing access to clean water, controlling infections in healthcare institutions, and vaccinating to lower the need for antibiotics, we can also stop illnesses before they start (14, 15).

### Conclusion and Recommendations

This article concluded that the magnitude of the problem of antibiotic resistance is enormous, and all of us have a role to play in addressing it. If everyone plays their part, we can ensure that these crucial drugs are still able to save lives in the years to come through the investigation of new antibiotics, the use of alternative medication, and the use of bacteriophage as medication.

Following analysis, it could be concluded that a dose of 1.5g intravenous oxytetracycline for a single time or even for two alternate days has no adverse effect on pregnancy progression and fetal development during early pregnancy in cattle.

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