

Have you or a loved one ever had a urinary tract infection, pneumonia, or ear infection that was cured with antibiotics? Now imagine the necessary antibiotic doesn't work because the bacteria are resistant, making the infection untreatable. The loss of effective antibiotic treatments will not only cripple the ability to fight routine infectious diseases but will also undermine treatment of infectious complications in patients with other diseases. Many of the advances in medical treatment—joint replacements, organ transplants, cancer therapy, and treatment of chronic diseases such as diabetes, asthma, rheumatoid arthritis—are dependent on the ability to fight infections with antibiotics. Antibiotic resistance is threatening our ability to cure infections both in the community and in health care facilities.

The Centers for Disease Control and Prevention (CDC) estimate that antibiotic resistant organisms cause about 2 million infections and 23,000 deaths occur every year in this country. The global burden is staggering—each year, over 25,000 deaths in the European Union, 38,000 deaths in Thailand, and 58,000 deaths in India are attributable to antibiotic resistant infections. Antibiotic resistant infections cost the U.S. health care system more than \$20 billion each year and contribute to more than 8 million additional hospital days.

Bacteria constantly adapt and change to survive, and some become resistant to antibiotics. If antibiotics are over-used, more bacteria develop resistance. When antibiotics are needed, they can be lifesaving, but when they are overused or used when not necessary they lead to resistance as well as pose other unnecessary risks such as allergic reactions and life-threatening diarrhea.

Antibiotics are commonly used in human medicine and dental care, for our pets, in animals and fish raised as food, and even on some edible plants and honey bees. Thirty to 50 percent of antibiotics used to treat people are inappropriate or unnecessary. But wherever they are used, more antibiotic use leads to more resistance. This is true in human bodies as well as ecosystems. We need to take action to maximize the benefits from these lifesaving drugs by avoiding unnecessary antibiotics and using them correctly when needed.

Everyone, prescribers and consumers alike, should be good stewards of these critical drugs. That means making sure the right antibiotic is prescribed, for the right reason, at the right dose, by the right route, for the right duration—and that we avoid antibiotics when they provide little benefit.

How can consumers help? First, don't assume you need antibiotics for every illness, and don't pressure your health care provider for a prescription. Don't use leftover antibiotics from somebody else. Ask your provider whether antibiotics are really needed and if there are simpler, safer alternatives. When you do need to take antibiotics, take them as directed for the full duration prescribed by your healthcare provider.

How can prescribers help? Healthcare facilities, clinics and long-term care facilities should have antibiotic stewardship programs. Don't prescribe antibiotics for viral infections, or for bacterial infections that are likely to resolve without antibiotics. Use recommended antibiotic therapies for the shortest effective time, and follow current clinical practice guidelines for the best outcomes for your patients, as well as the larger population.



How can food producers help? Reduce antibiotic use in animal agriculture. Follow new Federal Drug Administration guidance and rules expanding veterinary oversight of antibiotic use in animal feed. Optimize animal care practices to avoid antibiotics for preventive or growth-promotion purposes, and avoid using antibiotics essential to treat diseases in humans or animals.

The federal government has a national strategy for combating antibiotic resistance by supporting improved antibiotic use, tracking antibiotic resistant bacteria, and developing stronger antibiotics and new diagnostic tests to direct antibiotic use. However, we can't wait for new research and products to save lives and prevent unnecessary suffering. Everybody wins with wise antibiotic use. Combating antibiotic resistant bacteria is everyone's responsibility.

The following organizations are committed to combating antibiotic resistance here in Washington and contributed to this letter:

Association for Professionals in Infection Control—Inland Northwest & Puget Sound Chapters

Advanced Registered Nurse Practitioners United of Washington State

Qualis Health

University of Washington Center for One Health Research

Washington Academy of Family Physicians

Washington Academy of Physician Assistants

Washington Advocates for Patient Safety

Washington Chapter of the American Academy of Pediatrics

Washington Health Alliance

Washington Health Care Authority

Washington Infectious Disease Society

Washington State Association of Local Public Health Officials Health Officers Committee

Washington State Department of Agriculture

Washington State Department of Health

Washington State Hospital Association

Washington State Medical Association

Washington State Pharmacy Association

Washington State Veterinary Medical Association