

Spotlight on Health

Antibiotic Stewardship

Antibiotic stewardship means using antibiotics the right way. This means using them only when they are needed to treat or prevent a bacterial infection. It also means using the right dose for the right length of time.¹

You may have received drugs called antibiotics to treat strep throat, urinary tract infections, or pneumonia. These drugs fight infections caused by bacteria. They do not fight infections, like colds and flu, that are caused by viruses. It is important to take these drugs only when they will cure an illness.

If we take antibiotics when they aren't needed, we misuse them. If we take them for the wrong amount of time, we misuse them. When we do these things, we put ourselves at unneeded risk (sidebar). We also make it more likely that antibiotics won't work in the future. But we can all do something to help use antibiotics correctly—to be good stewards.

Antibiotic Resistance

Antibiotic resistance occurs when bacteria no longer respond to antibiotics. These drugs normally kill certain types (strains) of bacteria. But sometimes bacteria change so that they can't be killed. If they change and an antibiotic is used, the strain that can't be killed keeps growing.

A person with one of these resistant strains stays sick for longer and may even die. That person can also spread the resistant strain to other people. So antibiotic resistance is a danger to all. The Centers for Disease Control and Prevention (CDC) sees resistant strains as a major public health threat.^{1,2}

Misuse of antibiotics makes this problem worse. Sometimes an antibiotic is used when it isn't needed—like when people push doctors to give them something to make them feel better. When a doctor prescribes antibiotics just to make a patient happy, the resistant strains can become more common.³

Infections caused by these strains are hard to treat. A doctor may have to switch or add prescriptions to cure a patient. So these infections can lead to a person:

- Being at unneeded risk for other problems (sidebar)
- Being sick for a longer time
- Spending more money
- Dying—20,000 people are killed by resistant bacteria each year¹

Antibiotic Stewardship

Using antibiotics the right way can help:

- Reduce antibiotic resistance^{4,5}
- Reduce the number of opportunistic infections^{6,7}
- Reduce the amount of money spent on treating infections⁸



Risks of Antibiotics

Antibiotics are safe for most people. But like all drugs, they come with risks. Misuse can lead to unneeded risk.

- *Allergic reactions:* Antibiotics cause allergic reactions in some people. Tell your doctor if you have had a reaction to them in the past.
- *Side effects:* Antibiotics can cause nausea, diarrhea, and stomach pain.
- *Drug interactions:* Antibiotics can affect how well other drugs work. And other drugs can affect how well an antibiotic works. Tell your doctor if you are taking other drugs.
- *Opportunistic infections:* In the gut, many types of bacteria live in a healthy balance. An antibiotic can break this balance. Then certain types of bacteria could grow. They could cause a harmful infection. Doctors call this type of illness an “opportunistic” infection.

How Can You Help?

You can play a role in antibiotic stewardship. You can do this by partnering with your doctor.

- Ask your doctor if a test is needed. Tests can find out if your illness is caused by bacteria or a virus. If your illness is caused by a virus, you shouldn't take an antibiotic. It won't help and could cause harm. Tests can also make sure you are taking the right antibiotic.
- Don't push your doctor to prescribe an antibiotic that you don't need. Some illnesses don't need to be treated—they might go away on their own.
- Be sure to take antibiotics as directed. Do not stop taking them as soon as you feel better. Take them for as long as your doctor says you should take them.¹
- Only take antibiotics that your doctor tells you to take.¹
- Avoid illness. Make sure you wash your hands often, especially if you are around someone who is sick. If you are in the hospital, ask people who touch you to wash their hands before doing so. If you have a catheter, ask your doctor or nurse every day if you still need it.
- Ask your doctor or nurse what your hospital is doing about antibiotic stewardship.

These actions can help keep you and other patients healthy.

How Can Testing Help?

Tests play an important role in stewardship. They can help make sure that:

- You get an antibiotic only if you need it. Antibiotics cure bacterial, not viral, infections. A test can find out if your illness is caused by a bacteria or a virus.
- You are taking an antibiotic that will cure your infection. There are many antibiotics. A test can find out which antibiotic(s) will kill the bacteria making you sick.
- Your doctor knows if you have a resistant strain. This can help your doctor give you the correct treatment. Your doctor can also take steps to limit the spread of the strain to other people.

References

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