

## Frequently Asked Questions about...

# Drug Resistance and Antibiotic Stewardship

### Q. What is antibiotic resistance?

A. Antibiotic resistance (or drug resistance) occurs when bacteria change in some way that reduces or eliminates the effectiveness of drugs used to cure or prevent infections. The bacteria live and continue to multiply, causing more harm. This problem is a pressing public health threat and affects the ability to effectively treat disease.

### Q. Why should I be concerned about drug resistance?

A. People who develop infections that are resistant to antibiotics have increased risk of hospitalization and transfer to an intensive care unit, higher hospital costs, longer length of stay in the hospital, and higher risk of death. In addition, antibiotics can also eliminate “good” bacteria from the body, increasing the risk for developing *Clostridium difficile* infection, a type of gastrointestinal illness. Drug resistance is not just a problem for the person with the infection. Drug-resistant bacteria are able to spread and cause illness in others as well.

### Q. What is antibiotic stewardship?

A. “Antibiotic stewardship” is a term used to refer to interventions or programs designed to improve antibiotic use by ensuring that patients get the **right drug**, at the **right dose**, at the **right time**, and for the **right duration**. These programs have been proven to cut costs, reduce *Clostridium difficile* infections, and decrease the use of unnecessary antibiotics.

### Q. How can healthcare providers and patients prevent the spread of drug resistance?

- A. There are several things that healthcare providers can do, including:
- Use antibiotics for their appropriate dose and duration
  - Choose antibiotics wisely to reduce unnecessary antibiotic use
    - o Only prescribe antibiotics when they will be beneficial to the patient
    - o Target the likely pathogen as specifically as possible
    - o Avoid overlaps in antibiotic prescription – it is usually unnecessary to give two antibiotics to treat the same bacteria
    - o Never treat viruses (like the common cold or influenza) with antibiotics
  - Educate colleagues about appropriate antibiotic use, antibiotic resistance, and adverse effects
  - Be familiar with resistance trends in your region

Patients can also do several things to prevent the spread of drug resistance:

- Talk to your healthcare provider about antibiotic resistance. Trust that he/she will give you an antibiotic *only* when you need it. Every illness does not require an antibiotic.
- When prescribed an antibiotic, take it *exactly* as the doctor tells you. Finish taking the entire course of antibiotics even if you are feeling better. If you stop taking the drug too soon, some bacteria may survive, and you can get sick again. Do not save some of the antibiotic for the next time you get sick.
- Do not take an antibiotic that has been prescribed for someone else. The drug may not be appropriate for your illness and may delay correct treatment.

### Q. Where can I get more information about antibiotic resistance?

A. To learn more about drug resistance, go to CDC’s antibiotic resistance page (<http://www.cdc.gov/drugresistance/index.html>). CDC also leads the Get Smart campaign ([www.cdc.gov/getsmart](http://www.cdc.gov/getsmart)), a national antibiotic resistance awareness campaign that targets patients and healthcare providers across the continuum of healthcare.