

Tackling the Antibiotic Ask Question

Key Message 2: Action is needed to promote antibiotic stewardship and patient education in daily prescribing practices.

Are you an Antibiotic Steward in your Daily Practice?

- Antibiotic Outpatient Stewardship refers to coordinated efforts to promote appropriate prescribing of antibiotics for non-hospitalized patients in clinics, offices, and emergency rooms. The ultimate goal is to provide the best standard of care and to minimize the development and spread of antibiotic-resistant bacteria.
- Antibiotic Stewardship consists of 3 major components:¹
 1. Efforts to improve antibiotic use
 - Be Antibiotic Aware: 7 facts every prescriber should know²
 2. Promote better patient outcomes
 - Provide patients with appropriate information on how virus can be symptomatically managed without the use of antibiotics
 3. Combat antibiotic resistance

Tips for Counseling Patients about Antibiotics:

Communicating with patients:³

"Educating Patients About Antibiotic Use" - <https://www.youtube.com/watch?v=YHYmb2OKoMU>

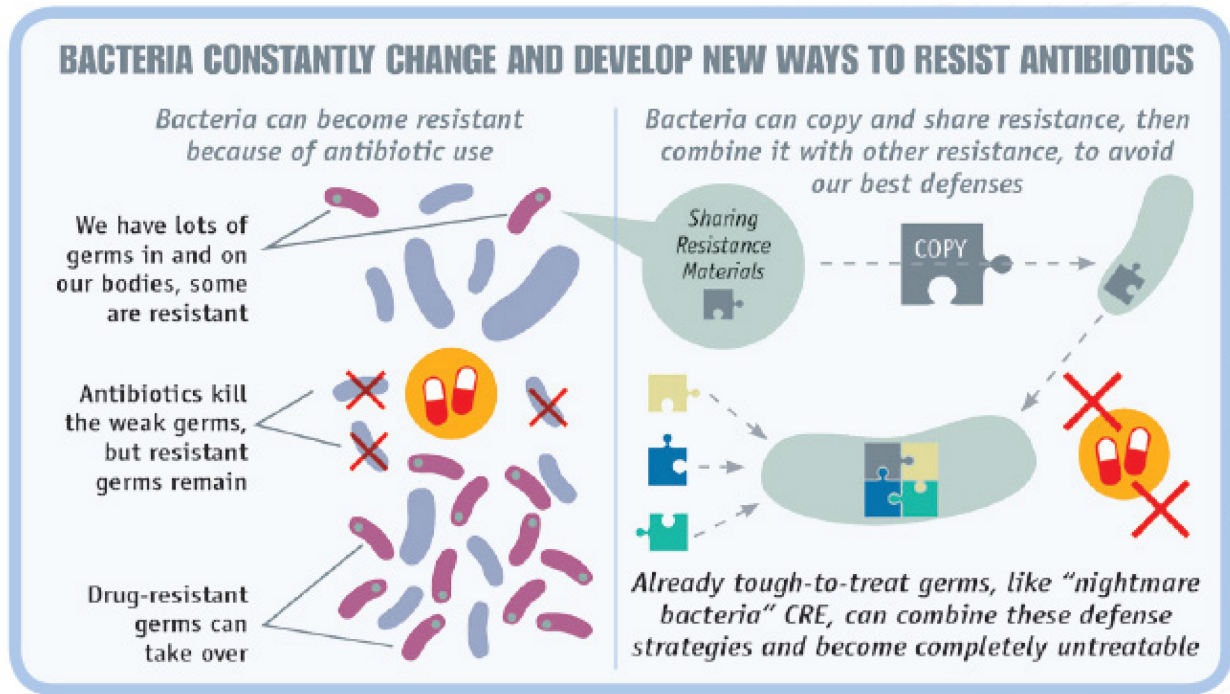
1. Review the physical exam
2. State the diagnosis
 - If the patient has a viral infection, remember to tell them an antibiotic will not make you feel better if you have a virus. Respiratory viruses usually go away in one to two weeks on their own.
3. Give treatment recommendation
 - Viral prescription pad for patient³
 - <https://www.health.ny.gov/publications/1175.pdf>
 - Use of patient educational material^{4,5}
4. Give contingency plan if not improving

Antibiotic Patient Counseling Guidance

Communication strategy ³	Examples
Explanation for why antibiotics are not needed	<ul style="list-style-type: none"> • “This is a nasty cold, so antibiotics won’t make you better faster.” • “The strep test is negative, meaning your sore throat is caused by a virus, and antibiotics won’t work.” • “You have a chest cold, and antibiotics won’t help.” • Tip for clinicians: Patients are less likely to expect antibiotics for “chest colds” than for “bronchitis”. • Always combine explanations for why antibiotics are not needed with positive treatment recommendations. Patients are willing to hear that antibiotics are not needed if the message is combined with how to help them feel better.
Positive treatment recommendations	<ul style="list-style-type: none"> • “Taking ibuprofen and drinking plenty of fluids will likely help you feel better.” • “Honey can actually soothe your cough and help you sleep better.”
Contingency Plan	<ul style="list-style-type: none"> • “If you are not better in three to four days, call or come back and we can reassess the need for antibiotics then.” • If you are still sick in a week or if you develop a fever, come back and see me.”
Delayed antibiotic prescriptions	<ul style="list-style-type: none"> • “Your ear infection will likely clear up on its own. If the ear still hurts in two days or gets worse, call or come back and we will recheck the ears.” • “Your ear infection will likely clear up on its own. Just in case it doesn’t, here is an antibiotic prescription. Fill this prescription in two days if the ear still hurts, or earlier if symptoms get worse. Feel free to call me with any questions.” • Tips for clinicians: When using delayed prescriptions, write an expiration date on the prescription (e.g., five to 10 days in the future) so that the prescription can be filled only during the watchful waiting period and not a few months later. • For e-prescribing: clinicians can make a note in the comments section alerting the pharmacist that the prescription is for delayed prescribing and not to fill until the indicated date.

Refresher of Antibiotic Resistance and How it Occurs?

- Antibiotic resistance occurs when bacteria adapt to the drugs that they are meant to be killed by developing defense strategies against them.⁶⁻⁸
- Decreasing unnecessary antibiotic use can result in reduced antibiotic resistance and certain infections such as *Clostridioides difficile*-associated infections, thereby decreasing healthcare costs and improving patient outcomes.⁶⁻⁸



- Antibiotic use disrupts the *microbiome*, the community of naturally occurring bacteria in and on the body.^{6,7}
- When antibiotics are needed, their benefits outweigh the risks, but when a patient is prescribed an antibiotic that they do not need, the patient receives no benefit and instead is put at risk for side effects.
- Antibiotics are one of the top three drug classes leading to adverse drug event-related emergency room visits for all ages. Impact of unnecessary antibiotic use can result in the following side effects:⁶⁻⁸
 - Rash, dizziness, nausea, diarrhea and yeast infections
 - Increased risk for infection: *Clostridioides difficile* (C. difficile) and candida
 - Allergic reactions
 - Drug interactions
 - Antibiotic resistance

REFERENCES: 1) Sanchez, G.V., Fleming-Dutra, K.E., Roberts, R.M., Hicks, L.A. Core Elements of Outpatient Antibiotic Stewardship. MMWR Recomm Rep 2016;65(No. RR-6):1-12. 2) Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of HealthCare Quality Promotion (DHQP). Antibiotic Prescribing and Use in Doctor's Offices. <https://www.cdc.gov/antibiotic-use/community/about/index.html>. Accessed May 23, 2019. 3) Fleming-Dutra K, Mangione-Smith R, Hicks L. How to Prescribe Fewer Unnecessary Antibiotics: Talking Points That Work with Patients and Their Families [editorial]. American Academy of Family Physicians. 2016;94(3):200-202. 4) New York State "Get Smart Campaign". NYC Get Smart Toolkit for Healthcare Providers. https://www.health.ny.gov/professionals/protocols_and_guidelines/antibiotic_resistance/docs/get_smart_toolkit.pdf. Accessed May 17, 2019. 5) Quality Improvement Organizations. A Field Guide to Antibiotic Stewardship in Outpatient Settings. https://qioprogram.org/sites/default/files/editors/141/C310_Field_Guide_20180730_FNL.pdf. Accessed May 15, 2019. 6) CDC. Antibiotic Use in the United States, 2017: Progress and Opportunities. Atlanta, GA: US Department of Health and Human Services, CDC; 2017. 7) CDC. Antibiotic Use in the United States, 2017: Progress and Opportunities. Atlanta, GA: US Department of Health and Human Services, CDC; 2019. 8) Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of HealthCare Quality Promotion (DHQP). How Antibiotic Resistance Happens. <https://www.cdc.gov/drugresistance/about/how-resistance-happens.html>. Accessed May 20, 2019