

# When Patients Ask for Antibiotics, Arm Them With Handouts

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When patients with bad colds or other viral respiratory infections arrive at your office, they're probably not aware that their antibiotics requests make them part of a serious and growing public health problem. It's up to us to teach them, both about antibiotic resistance and about how to obtain relief of their symptoms using OTC drugs and other simple remedies.

**D**rug store and supermarket shelves display aisle after aisle of OTC medications that alleviate the common symptoms of upper respiratory infections. Despite the easy availability of symptom relief, a significant number of people consult clinicians in primary care offices, emergency departments (EDs), and walk-in or convenient care clinics for help when they feel that they're "coming down with something." During these visits, many of these patients expect, and sometimes demand, antibiotics.

Antibiotics may be viewed by the patient as a quick fix, with the demand undoubtedly fueled by busy lifestyles, long work hours, and little time for patients to stay home while ill. Patients so inclined may "doctor shop" if their demands are not met; clinicians know better but may feel pressure to "satisfy the customer" and may rationalize that an antibiotic might prove helpful in a particular case.

Lee et al studied outpatient antibiotic prescribing in the United States for acute respiratory tract infections (ARTI), including acute nasopharyngitis, upper respiratory tract infection, bronchitis, influenza, pharyngitis, and sinusitis. In 2000, antibiotics were prescribed during outpatient visits for ARTI to 64% of patients; by 2010, that percentage had increased to 73%.<sup>1</sup> Although antibiotics are nei-

ther effective nor appropriate for the treatment of ARTI, most of which are viral infections, they are commonly prescribed. Further, while 17% of ARTI prescriptions in 2000 were for broad-spectrum antibiotics, that percentage jumped to 46% in 2010.<sup>1,2</sup>

Patient insistence on antibiotics may stem either from little knowledge of or little regard for the health problems caused by unnecessary antibiotic use. For example, one study found that 19.3% of drug-related ED visits were related to systemic antibiotics; nearly 80% of those were for allergic reactions.<sup>3,4</sup> With an estimated 50% of antibiotic prescriptions considered inappropriate, the overuse of antibiotics creates unnecessary personal health risks and health care expenditures. Further, a more serious consequence of this overuse is the growing public health problem of antibiotic resistance (see Figure 1, page 36).<sup>1,2</sup>

Clinicians are ideally positioned to address these issues by incorporating effective, proactive strategies into selected patient encounters to specifically explain appropriate versus inappropriate antibiotic use.

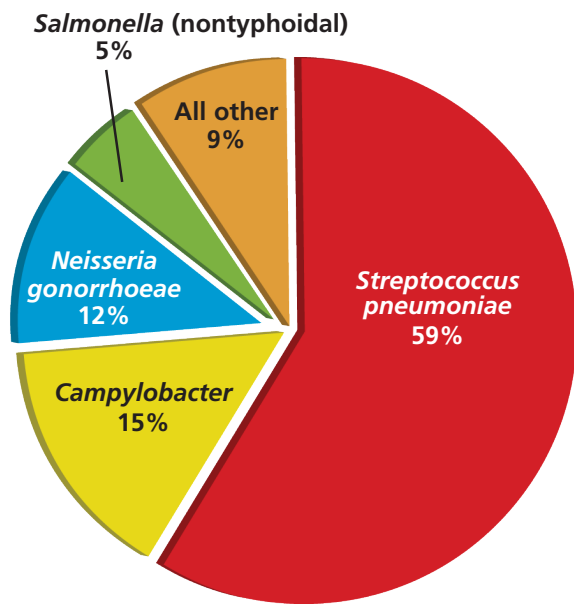
One approach is to merge accurate, powerful messages about antibiotics with helpful information about effective OTC products to both enlighten patients and offer them the symptomatic relief they seek. The CDC has taken the lead in this area with its "Get Smart: Know When Antibiotics Work" initiative, which includes a variety of materials for both health care providers and patients.<sup>5</sup>

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**FIGURE 1**  
Causes of Antibiotic-Resistant Infections



More than 2 million people in the United States are infected with antibiotic-resistant bacteria every year.

Source: CDC. Antibiotic resistance threats in the United States, 2013. [www.cdc.gov/drugresistance/threat-report-2013/pdf/ar-threats-2013-508.pdf](http://www.cdc.gov/drugresistance/threat-report-2013/pdf/ar-threats-2013-508.pdf).

Inspired by the unmet need for written communications that explain viral and bacterial illnesses in simple terms and the reasons why taking antibiotics for the former is a bad idea, we developed two handouts for adult patients who present to the clinician's office with viral respiratory illnesses.

The first is entitled "Prescription for Recovery From Your Viral Respiratory Illness" (see pages 37-38). Intended to be duplicated and designed with primary care use in mind, it can be customized for specialty use as well.

This "prescription" handout addresses common complaints of fever, pain (eg, sore throat, body aches, headache), cough, congestion (chest, nose,

sinuses), and sneezing/runny nose. Clinicians can check off the appropriate treatments for an individual patient, who can use it as a handy reference to purchase the recommended OTC products and/or for selecting products or preparing helpful remedies at home. Blank lines at the bottom provide space for you to write in your OTC preferences and allow you to customize patient instructions.

The second patient handout is entitled "Antibiotics: When You Need Them, When You Don't, and What to Take When You Don't" (see pages 39-40). This focused patient teaching tool offers an overview of

- Viral and bacterial respiratory illnesses and what the patient should do if he or she has one or the other (including when to see a clinician)
- Some helpful OTC and home treatments for symptoms of viral respiratory illnesses
- When antibiotics are indicated and when they're not—and why
- The serious problems caused by unnecessary use of antibiotics.

This brief guide can be used as a general informational handout that can, for example, be given, mailed, or e-mailed to all adult patients at the start of cold and flu season and retained by them for reference. It can also be provided along with the "prescription" handout to patients with ARTIs who visit your office. In the latter situation, the patient leaves your office with concrete information and guidance for appropriate care of his or her viral respiratory illness—but without a prescription for antibiotics. As with the "prescription" handout, this brief guide may be duplicated or customized as needed. **CR**

## REFERENCES

1. Lee GC, Reveles KR, Attridge RT, et al. Outpatient antibiotic prescribing in the United States: 2000-2010. *BMC Med*. 2014;12:96.
2. CDC. Antibiotics: will they work when you really need them? [www.cdc.gov/getsmart/healthcare/factsheets/antibiotics.html#MustAct](http://www.cdc.gov/getsmart/healthcare/factsheets/antibiotics.html#MustAct). Accessed August 14, 2014.
3. Shehab N, Patel P, Srinivasan A, Budnitz D. Emergency department visits for antibiotic associated adverse events. *Clin Infect Dis*. 2008;47:735-743.
4. CDC. Adverse drug events from select medication classes. [www.cdc.gov/MedicationSafety/program\\_focus\\_activities.html](http://www.cdc.gov/MedicationSafety/program_focus_activities.html). Accessed August 4, 2014.
5. CDC. Get smart: know when antibiotics work. [www.cdc.gov/getsmart/](http://www.cdc.gov/getsmart/). Accessed August 14, 2014.

# Prescription for Recovery from Your Viral Respiratory Illness

Place business card here before photocopying

Patient: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Diagnosis: \_\_\_\_\_ Date: \_\_\_\_\_



- Fever (100°F or higher)
- Pain (sore throat, body aches, sinus pain)
- Cough
- Congestion (chest, nose, sinuses)
- Sneezing, runny nose

Take the medication(s) and/or action(s) checked below to help you feel better.

Note: Generic drug names are given first, followed by examples of brand names.

## For fever and/or pain (sore throat, body aches, sinus pain)

- Ibuprofen (Advil, Motrin): Take \_\_\_\_\_ tablets every 4 to 6 hours for \_\_\_\_\_ days.
- Naproxen (Aleve): Take \_\_\_\_\_ tablets every 12 hours for \_\_\_\_\_ days.
- Acetaminophen (Tylenol, Panadol): Take \_\_\_\_\_ tablets every 4 to 6 hours for \_\_\_\_\_ days.

## For sore throat

- Throat lozenges or sprays containing benzocaine, phenol, menthol.
- Gargle with warm salt water.

## For cough and chest congestion

- Dextromethorphan/guaifenesin (Mucinex DM): Take with plenty of water for the next \_\_\_\_ days:
  - Two tablets every 12 hours for the first four doses, then one tablet every 12 hours.
  - One tablet every 12 hours.
- Warm mist vaporizer with camphor (Vicks VapoSteam).

(Over)

**For nose and sinus congestion**

- Pseudoephedrine (Sudafed 4- or 12-hour tablets; ask for it at the pharmacy counter).  
Take for the next \_\_\_\_ days; follow the package directions.
- Phenylephrine (Sudafed PE – nondrowsy):  
Take for the next \_\_\_\_ days; follow the package directions.
- Nasal spray: Follow the package directions to help clear your nose and make it feel less dry.
  - Saline sprays (Ayr, Naturade)
  - Nasal saline irrigation (Simply Saline Neti Pot Kit, NeilMed Sinus Rinse)

**For sneezing, watery/itchy eyes, runny nose**

- Chlorpheniramine (Chlor-Trimeton, Coricidin HBP): Take for the next \_\_\_\_ days;  
follow the package directions.

**For overall congestion relief**

- Drink more liquids (water, juice, chicken soup, tea). These help to thin the mucus in your nose and chest so you'll feel less stuffy.
- Use a cool mist humidifier at your bedside. Moist air is more comfortable and less irritating than dry air and will make it easier for you to sleep.
- Take a hot shower or inhale steam from another source (eg, bowl of hot water). The steam will help you breathe more easily.

**For faster recovery**

- Rest. Stay home from work or school or take a break from your usual activities for the next \_\_\_\_ days.

**To avoid spreading your illness**

- Try not to touch your eyes, nose, and mouth. If you do, wash your hands before touching anything or anyone else.
- Don't let anyone use a dish or utensil you've used until it's been thoroughly washed with hot soapy water.

**Other important advice**

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SIGNATURE OF PRESCRIBER



# Antibiotics: When You Need Them, When You Don't, and What to Take When You Don't

Check if your symptoms are likely caused by viruses or bacteria

Illness	Common symptoms	Viral	Bacterial
<b>Bronchitis</b>	Cough, clear or green mucus, no or low fever (100°F-101°F), occasional wheezing, chest soreness, short of breath	x	Rarely
<b>Common cold (upper respiratory infection)</b>	Runny nose, nasal stuffiness and congestion, facial pressure, cough, chills, body aches, low fever (100°F-101°F), scratchy throat, sneezing, headache, watery eyes, tiredness	x	
<b>Ear infection (acute otitis media)</b>	Ear pain; red, bulging eardrum; fever ( $\geq 100^\circ\text{F}$ ); discharge from ear; fluid may collect in inner ear, causing feeling of fullness in ear(s), muffled hearing	x	x
<b>Pneumonia</b>	Cough, short of breath, fever ( $\geq 100^\circ\text{F}$ ), chest pain when taking a deep breath, tiredness, bluish lips from low oxygen in the blood	x	x
<b>Sore throat</b>	Throat burning/pain, hard to swallow. Symptoms of a cold (see above) may also be present.	x	
<b>Strep throat</b>	Sore throat, fever ( $\geq 101^\circ\text{F}$ - $102^\circ\text{F}$ ), white patches on tonsils, enlarged lymph nodes, upset stomach; there is usually no cough, runny nose, or diarrhea.		x

## If your illness is probably

- **Viral:** Make an appointment to see your health care provider if you don't feel better or if you feel worse after a few days.
- **Bacterial:** Make an appointment to see your health care provider as soon as possible.

## For Illness Caused by a Virus

There are many helpful OTC medicines and things you can do at home to improve your symptoms and make you feel better.

### OTC medicines

- Ibuprofen, naproxen, and acetaminophen can lower fever and relieve pain (sore throat, body aches, sinus pain).
- Throat lozenges and sprays can ease throat pain and irritation.
- Decongestants, such as Sudafed\* and Sudafed PE,\* help relieve a stuffy nose and sinuses.

\* If you have high blood pressure or diabetes, ask your health care provider or pharmacist about safe decongestant choices for you.

- Mucolytics and antitussives, found in Mucinex

DM or Robitussin DM, can thin and loosen chest congestion and reduce coughing.

- Saline nasal sprays (eg, Ayr, Naturade) or nasal saline irrigation (Simply Saline Neti Pot Kit, NeilMed Sinus Rinse) can "unstuff" and soothe your nose.

### Home remedies

- Cool mist humidifiers may be useful to moisten the air and make it more comfortable to breathe so you can rest and sleep.
- A warm mist vaporizer, especially with a medicated inhalant (eg, Vicks VapoSteam), may relieve chest congestion and cough.
- Liquids (water, juice, soups, tea) thin mucus and may help you feel less congested. Drink liquids without a lot of caffeine.

(Over)



- Rest is important. Take naps and if you have a fever, stay home from work or other activities.

### Tips to avoid spreading your illness

- Wash hands frequently with soap and water or hand sanitizer.
- Don't let anyone eat or drink from the same

dishes or use the same utensils you've used.

- Cover your mouth with a tissue when sneezing or coughing; dispose of used tissues carefully. If you don't have a tissue, sneeze or cough into your sleeve.
- Stay home when you're sick. Especially avoid the very young, the elderly, and others who are sick.

## Antibiotics Do's and Don'ts

**If you receive a prescription for antibiotics,** here are some important things to know.

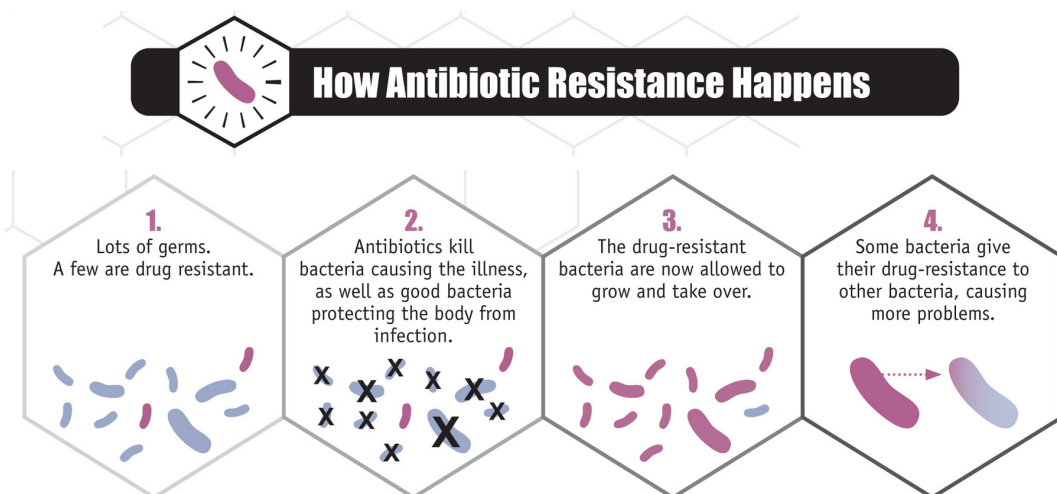
- **Do** finish all the pills you receive; don't stop taking the medicine when you begin to feel better and don't save some for "next time."  
*If you don't finish all the medicine, some bacteria survive and your infection may come back.*
- **Don't** take someone else's prescription.  
*Unless you're a health care provider, you can't diagnose yourself; you don't know if what you have is the same as what someone else has.*
- **Don't** share your prescription with someone else.  
*See the two items above.*
- **Don't** double the next dose if you forget to take a dose.  
*It's not safe to take more medicine at once than your health care provider prescribed. If you forget to take a dose, then take it as soon as you can.*

### And remember...

- **Don't** take antibiotics for viral infections. They're only effective against bacteria, not viruses, so they won't help you get better from a viral infection. You don't need them.

**Why is it so important not to take antibiotics when you don't need them?**

- Although antibiotics kill bacteria, a few will survive. These bacteria are antibiotic resistant and can grow, multiply, and spread to other people.
- Sometimes antibiotics kill "good" bacteria that prevent other infections. This can cause other illnesses to develop, such as vaginal or oral fungus infections and *Clostridium difficile colitis*. There's no reason to risk these side effects if you have a viral infection.
- Eventually, an antibiotic that once worked to treat bacterial infections no longer does because the bacteria have become resistant to that antibiotic.
- Illnesses can last longer, causing more doctor visits and hospital stays; stronger drugs with more serious side effects must be used; and in some cases, people die from antibiotic-resistant bacterial infections.
- The best way to reduce the number of bacteria that are becoming resistant to antibiotics is to take antibiotics only when they're needed—in other words, to treat bacterial infections.



Source: CDC / Melissa Brower

