

# Shifting Patient Expectations When Antibiotics Are Not Needed: Which Messages Are Most Effective?

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## Background

Urgent care clinicians often cite patient expectations for antibiotics and high prioritization of patient satisfaction with care as reasons for prescribing antibiotics for acute respiratory tract infections even when they may not be indicated.

## Objective

The objective of this national survey of urgent care patients is to evaluate patients' expectations for antibiotics and the effectiveness of various educational messages on patient satisfaction.

## Methods

**Study design:** National survey  
**Survey development:** A 69-question survey was developed based on findings from an online bulletin board discussions with 36 recent urgent care clinic patients. Survey questions included basic demographics, questions informing the Newest Vital Sign (NVS) assessment for health literacy, circumstances for seeking care in urgent care clinics, basic knowledge about appropriate antibiotic use and antibiotic resistance, expectations for antibiotics, and predicted satisfaction with urgent care clinical scenarios as it relates to messages delivered and whether or not an antibiotic was prescribed.  
**Inclusion criteria:** Individuals were eligible to participate if they were  $\geq 18$  years and had used an urgent care at least once in the past year.  
**Recruitment:** Participants were recruited using address-based sampling from the Delivery Sequence File of the USPS. From this sample representative of the US population, customized stratified random sampling was employed to identify a sample of patients representative of urgent care center customers.  
**Survey Administration:** GfK administered the survey in April 2017 using its KnowledgePanel™ online panel. Incentive to participate was provided in the form of points to the KnowledgePanel™ account.  
**Data Analysis:** The data were weighted in accordance with national benchmarks for this population.

## Results

**27% completion rate:** 610 qualified participants completed the survey out of 2,294 individuals contacted

### Demographics\*, n=610

Age in years, median	42
Female	62%
Parent of child < 18y	34%
Geographic region	
Northeast	19%
Midwest	20%
South	38%
West	23%

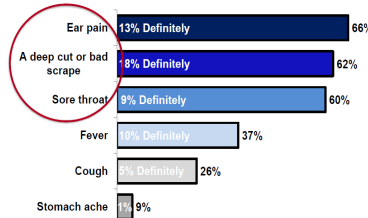
### Baseline knowledge

Limited health literacy (NVS score 0-3)	45%
TRUE or FALSE: "Antibiotics work for both bacterial and viral infections."	TRUE: 20% (4% certain) FALSE: 74% (61% certain)

\*weighted

## Expectation for antibiotics

"For each symptom, how likely would you be to expect antibiotics?"



## Response to messages

	Pre-Messaging	Post-Messaging
How concerned are you about antibiotic resistance?	67% Very/somewhat concerned	81% Very/somewhat concerned
How willing would you be to use antibiotics less often for viral/bacterial infections?	76% Very/somewhat willing	83% Very/somewhat willing

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## Response to messages

For each statement below, please indicate how convincing a reason it is to avoid taking antibiotics unnecessarily.

### % Responding Very/Somewhat Convincing

Message	%
Antibiotic resistance would make common medical procedures very hard or impossible, including surgery, childbirth, transplants, and cancer screenings.	70%
Taking antibiotics when you don't need them is really bad for you. It kills good bacteria, which could make you get even sicker.	70%
Antibiotic-resistant bacteria could turn even a simple cut or scrape into a life-threatening or deadly illness.	68%
Taking antibiotics when you don't need them could make you up to 10 times more likely to get some potentially deadly infections.	68%
There is an easy, cheap solution to this problem. Science shows that if we're smart about antibiotics and only take them when they are necessary and effective, many of the superbugs will lose their ability to resist antibiotics.	68%
Antibiotic resistance is a bigger problem for kids because they can only tolerate certain prescription medications, which puts kids at higher risk for long hospital stays or even death.	63%
Antibiotic-resistant infections cost the U.S. health care system \$26 billion a year, driving up health care costs for everyone.	62%
Taking antibiotics when you don't need them kills the good bacteria in your body which can cause problems like weight gain.	51%
Taking antibiotics when you don't need them can cause allergic reactions that could require going to the emergency room.	50%

## Conclusions

Survey respondents report an increased level of concern about antibiotic resistance and a greater willingness to modify their own behavior following the introduction of information. They exhibit an initial expectation for antibiotics in some cases, but also a willingness to accept the advice of their urgent care clinician when it is delivered in a way that communicates a clear explanation of the problem and consequences.