



Policy Brief

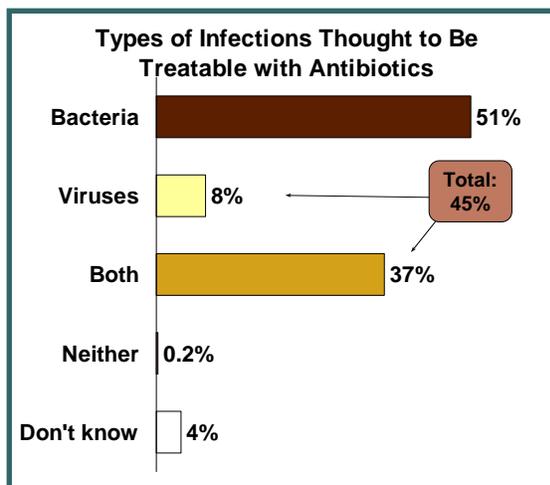
Patient Behaviors and Beliefs Regarding Antibiotic Use

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Antibiotic resistance is threatening the ability of health care providers to provide effective treatments for infectious diseases. Many patient behaviors contribute to the development of resistance, including obtaining antibiotics from sources other than health care providers, the practice of stopping antibiotic prescriptions early, and pressuring health care providers to prescribe antibiotics for conditions for which they are inappropriate.

In 2006, a telephone survey of 919 English-speaking U.S. adults who had taken antibiotics within the last 12 months was carried out by Links Media (Gaithersburg, MD) under contract from APUA. The purpose was to gain a better understanding of the beliefs and risk factors associated with these behaviors, and to identify ways to discourage inappropriate antibiotic use patterns in patients. Respondents answered questions about their beliefs, experiences, and practices concerning antibiotic use.



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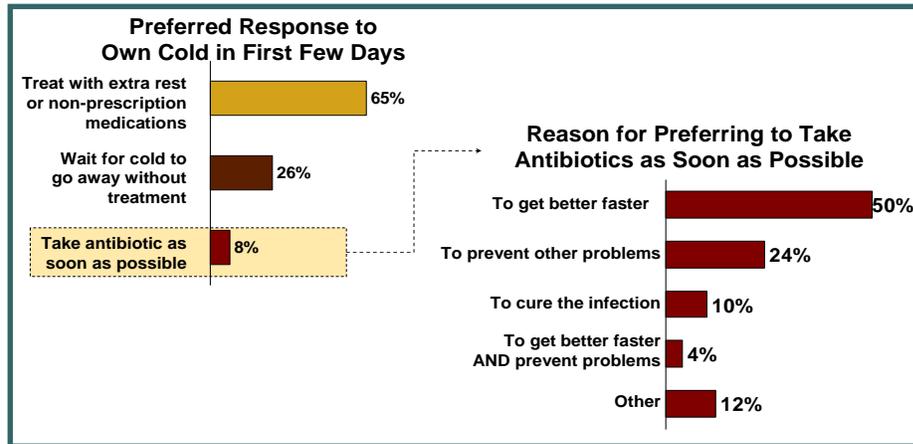
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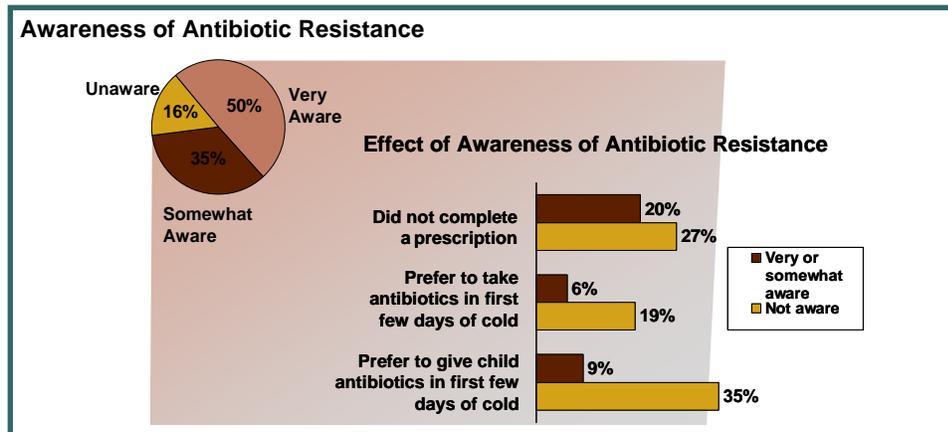
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The study identified a number of incorrect beliefs and perceptions about antibiotics and their use. Even though many patients believe that they “know what they need” to treat illnesses, patient knowledge of basic issues related to antibiotic use is often quite low. For example, 10% of respondents identified Tylenol®, Robitussin®, or both of these as antibiotics, and an additional 4% named other non-antibiotic drugs as antibiotics at some point in the survey. About half of the respondents reported a belief that antibiotics are useful for treating infections caused by viruses.

More specifically, 8% of respondents stated that antibiotics are their first choice of treatment during the first 3 days of a cold, and a belief that antibiotics can treat viral illnesses was associated with this preference; respondents who held this belief had an 11% chance of preferring antibiotic treatment, compared to 5% of those who knew that antibiotics were only effective against bacterial infections. Thirteen percent of parents preferred to give their children antibiotics right away, and for this group, the effect of believing that antibiotics can treat viral infections was even stronger. The proportion that expressed a preference for antibiotic treatment re-



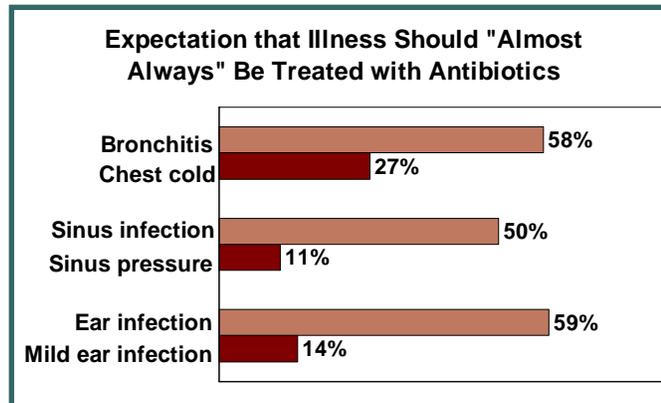
mained constant at 5% for those who displayed correct knowledge, but a full 21% of those who believed that antibiotics can treat viruses preferred antibiotic treatment for their children in the first 3 days of a cold (graphic not shown). The graphic above illustrates treatment preferences for the respondent’s own cold, and summarizes the reasons respondents gave for preferring antibiotics.



Public information campaigns and prescribers’ advice about antibiotic resistance seem to be having an impact; the study found evidence that behavior was affected by knowledge about antibiotic resistance. This knowledge reduced the likelihood that a respondent would stop a prescription early without consulting a health care provider, and also reduced the likelihood that they would take antibiotics in the first days of a cold themselves, or give them to a child in the first few days of a cold.

One key “lever” that prescribers can use to reduce demand for antibiotics is in the terminology chosen to describe an illness. Use of a more “mild” description resulted in a significant decrease in the number of patients who thought that illness should “almost always” be treated with antibiotics. For example, describing an ear

infection as a “mild ear infection” made respondents four times less likely to believe that antibiotics were needed, as compared with describing it as an “ear infection.”



Since the most common reason given for preferring antibiotics for a cold was “to get better faster,” it may be worth emphasizing the fact that antibiotics cannot help this happen.

Conclusions

These results suggest potential communication strategies which can be used to reduce patient expectations for antibiotics in situations in which they are unnecessary. By understanding gaps in patient knowledge, and communicating diagnosis in ways that patients find less threatening, clinicians can negotiate encounters and reduce pressure to prescribe an unneeded antibiotic. Specifically, the results indicate that the following practices may be useful:

- 1) Patients may not have sophisticated understanding of what antibiotics can do, and prescribers may want to take this into account when talking with patients who have requested unnecessary antibiotics. For example, a statement like “you have a virus, so you don’t need an antibiotic today” might not be accepted as a logical argument to the 45% of survey respondents who believe that antibiotics can treat viruses.
- 2) Patients usually have specific reasons for their preferences. Since the most common reason given for preferring antibiotics for a cold was “to get better faster,” it may be worth emphasizing the fact that antibiotics cannot help this happen.
- 3) Similarly, when giving a patient a prescription, it may be helpful to make sure the patient understands what type of medication he or she is receiving.
- 4) The results show that having knowledge about antibiotic resistance does indeed lead to lower rates of patient antibiotic requests and other undesirable behaviors. It is worth taking the time to explain to patients how resistance develops, and how this could directly affect them.
- 5) Communicating a diagnosis in terminology that patients find less threatening may substantially reduce expectation of receiving an antibiotic.

For more information, the article “Sustainability for behaviour change in the fight against antibiotic resistance: a social marketing framework” by Timothy Edgar, Stephanie D. Boyd, and Megan J. Palame, can be found at: <http://jac.oxfordjournals.org/cgi/content/full/dkn508>

For further information, call 617 636 0966 or visit www.apua.org

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