Pressure to Prescribe

How social choices shape antibiotic use and research

FB.1.4 "Enrichment: Research, analyze, explain, and communicate the influence of society, including cultural components, on the direction and progress of science and technology (e.g., medical treatments, emerging viruses, antibiotic resistance..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline at least three social conditions or choices, circle a linked effect on resistance or the use of scientific tools, and number each matching pair.

When Antibiotics Meet Social Pressure

1. At a crowded clinic, a patient with a sore throat asks for antibiotics so they can return to work. Most sore throats are caused by viruses, which antibiotics do not kill. A clinician may feel pressure to prescribe anyway, especially when taking time off for a test or follow-up visit costs a day's pay. When someone takes antibiotics for a virus, bacteria already living in the body still encounter the drug. Susceptible bacteria may die while resistant ones survive and multiply. Researchers study this selection process to explain how limited paid leave can help create a biological problem.

2. When hospitals reported infections that no longer responded to common drugs, scientists compared bacterial samples and tested which antibiotics still worked. Those results led clinics to use laboratory tests when possible and to reserve certain drugs for cases that need them. Yet tests and newer medicines cost money, and rural clinics may lack equipment. Public funding and insurance rules therefore influence which research tools reach patients, not just which tools scientists invent. A clinic may know the best test exists but still be unable to offer it without trained staff.

3. In some communities, asking for a prescription is seen as proof that a visit was worthwhile. Instead of blaming patients, a clinic can explain why antibiotics will not treat a viral illness and offer symptom care. Schools and employers can make it easier to stay home when sick, reducing the pressure to demand a quick prescription. Health departments can fund testing and track resistant infections to guide future research. These choices will not eliminate resistance, which can evolve naturally, but they can slow its spread and help scientists decide where better diagnostics and treatments are needed.

2 ANSWER WITH EVIDENCE

Use the passage

1. How could limited paid leave at work contribute to antibiotic resistance?

2. How did reports of infections that resisted common drugs change the work of scientists and clinics?

3. Why can funding and insurance rules affect how much patients benefit from a test that scientists have already invented?

4. How should a clinic respond when patients see a prescription as proof that their visit was worthwhile? Explain how that response could affect antibiotic use.

3 YOUR TURN

Your own words

A community animal shelter has repeated bacterial skin infections. In three or four sentences, propose a shelter policy and a scientific tool to address them, explain one social factor that could affect your plan, and connect the plan to antibiotic resistance.

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PART 1 · READ AND MARK

Underline at least three social conditions or choices, circle a linked effect on resistance or the use of scientific tools, and number each matching pair. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How could limited paid leave at work contribute to antibiotic resistance?	**Losing pay for a test or follow-up visit can increase pressure to prescribe antibiotics for a viral illness. The drug may then select for resistant bacteria already in the body.**
2	How did reports of infections that resisted common drugs change the work of scientists and clinics?	**Scientists compared bacterial samples and tested which drugs still worked. Clinics began using laboratory tests when possible and reserving certain antibiotics for cases that needed them.**
3	Why can funding and insurance rules affect how much patients benefit from a test that scientists have already invented?	**Tests cost money, and clinics may also need equipment and trained staff. Funding and insurance rules affect whether patients can access those tests.**
4	How should a clinic respond when patients see a prescription as proof that their visit was worthwhile? Explain how that response could affect antibiotic use.	**The clinic can explain why antibiotics do not treat a viral illness and offer symptom care. This may reduce requests for unnecessary antibiotics.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The shelter should train volunteers to clean shared bedding and give antibiotics only when a veterinarian prescribes them. A veterinarian could collect samples and test which drugs work against the bacteria. The shelter would need money and staff time for testing, so local donations could help put the plan into practice. Preventing infections and avoiding unnecessary antibiotics could reduce the selection of resistant bacteria.

Accept other supported cause-and-effect links between social conditions and antibiotic use, access to tests, or research priorities. For the open task, look for a plausible policy, a relevant scientific tool, a social factor, and an accurate link to resistance.