

Survey of Student Nurses of Etiologies for Antibiotic Resistance

In this two-question survey, the topic being investigated is the working beliefs on what the etiology/cause is for antibiotic resistance.

1. Please *select all that apply* from the options below as to *what you believe the cause(s) is/are* for bacterial antibiotic resistance:

- ☐ Chemical countermeasure compounds that the bacteria generate are able to defeat the antibiotic medications (making them ineffective).
- ☐ The creation of biofilms can prevent antibiotic medication from reaching the bacteria inside.
- ☐ Protein pumps in the bacteria that allow it to efflux (pump) out antibiotic medications designed to kill them.
- ☐ Random mutation of bacteria genes accelerate the evolution of bacteria to defend themselves.
- ☐ Bacteria have alternate pathways to utilize for necessary metabolic functions that the antibiotic medications are designed to block.
- ☐ Patients not taking a course of antibiotics to its full prescribed duration.
- ☐ Higher acuity of patient presentations in contemporary clinical setting.
- ☐ Selective pressure from the overuse of antibiotic medications and antiseptic cleansers make bacteria develop new antibiotic resistance (e.g. "dose-response").
- ☐ Something to do with the genetics of the bacteria itself that it has or picked up.
- ☐ Overuse of antibiotics in agriculture.
- ☐ None of these.
- ☐ I do not have enough information to answer the question.
- ☐ I did not understand the question being asked.

2. In the Carroll College nursing program, I am a (please select one):

- ☐ Sophomore ☐ Junior ☐ Senior