

## Survey of Professional Nurses of Etiologies for Antibiotic Resistance

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

1. How familiar are you with antibiotics and their use?

- a. Extremely familiar
- b. Very familiar
- c. Somewhat familiar
- d. Not so familiar
- e. Not at all familiar

2. 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.

3. How many years have you been working as a professional nurse?

- a. Less than 1 year
- b. Less than 5 years
- c. Less than 10 years
- d. Less than 15 years
- e. More than 15 years

4. What is your highest level of education?

- a. Diploma
- b. Associates
- c. BSN or presently working on it
- d. MSN or presently working on it
- e. PhD or presently working on it
- f. Other

5. **Optional:** This is my first time doing a survey like this, and I would *love to hear* your comments or feedback on your experience taking this survey!