

Is self-medication the only problem regarding antibiotic use among Vilnius residents?

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Background

One of contributors to antibacterial resistance is self-medication with antibiotics.

This study seeks to find out and compare the prevalence of self-medication with antibiotics between Vilnius residents, who were grouped according to their relation to medical care.



Figure 1. Vilnius, the capital of Lithuania. Photo by A. Barkus. 2012

Besides self-medication, the focus was also taken on several other factors, contributing to inappropriate antibiotic use, such as antibiotic storage at home and acquisition of prescriptions from a colleague or relative physician.

Materials and methods

An observational, cross-sectional study was conducted. The convenience sampling method was chosen. The data were collected during the last three months of the year 2014.

The following research groups were formed:

- Physicians
- Other medical personnel
- Medical students (undergraduates at Vilnius University Faculty of Medicine)
- People, not directly related to medical care

Results

273 respondents fully completed the questionnaires. The data, provided by 24 physicians, 27 other medical personnel, 180 medical students and 42 respondents, unrelated to medical care, were used in the study.

Although the actual **self-medication** with antibiotics rate might seem rather low (4,0%), the intended self-medication rate was 51.4%.

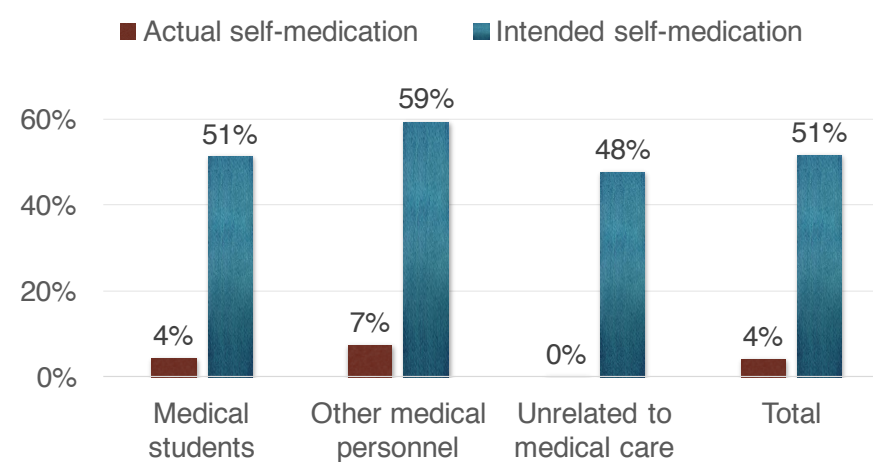


Figure 2. The actual and intended self-medication rates among the respondents

The most common ways of **antibiotic acquisition** among the respondents, who had taken the antibiotics during the past 12 months, are shown in the chart below:

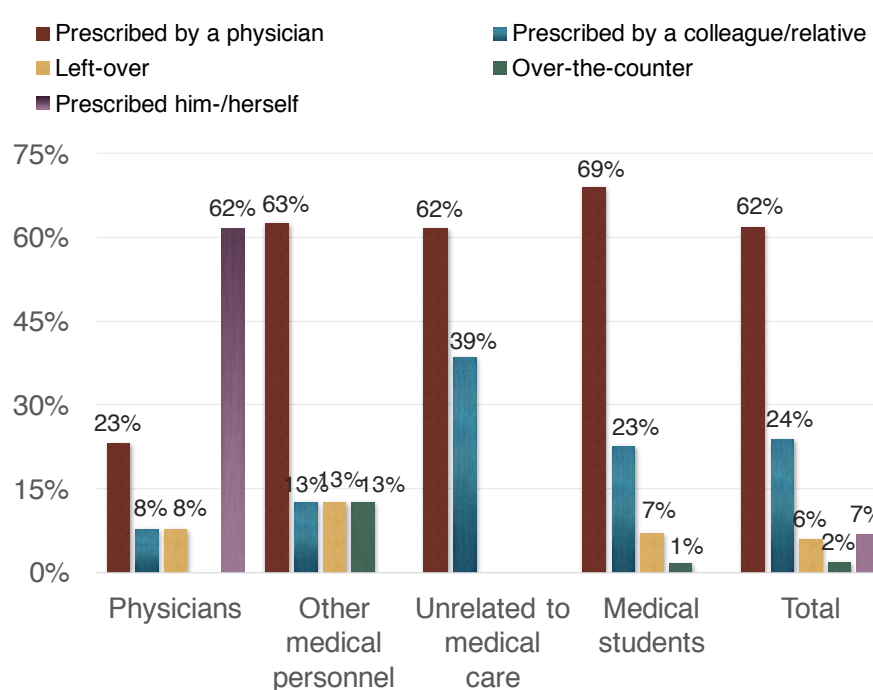


Figure 3. The comparison of antibiotic acquisition rates among the respondents

Results

The most common **reasons for self-medication** with antibiotics were:

- Upper respiratory tract infection
- Acute bronchitis
- Urinary tract infection.

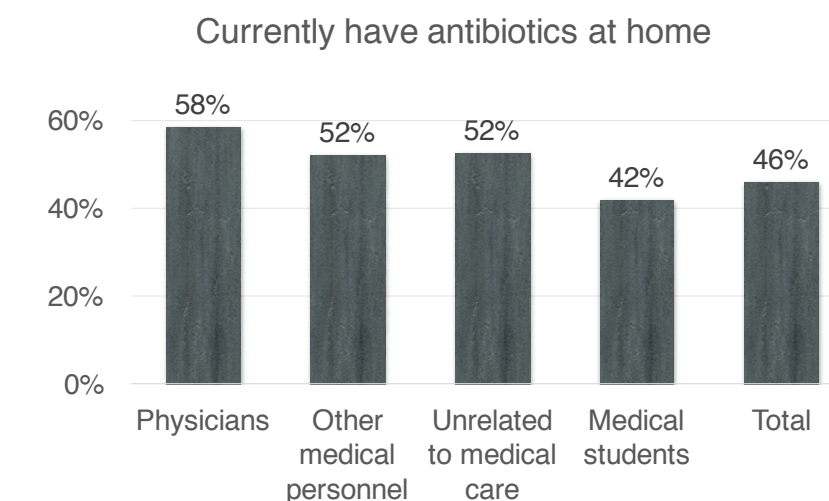


Figure 4. The prevalence of antibiotic storage at home among the research groups.

- 125 (45,3%) had antibiotics present at home.
- The most common were amoxicillin and amoxicillin with clavulanic acid.
- 19 different preparations were reported

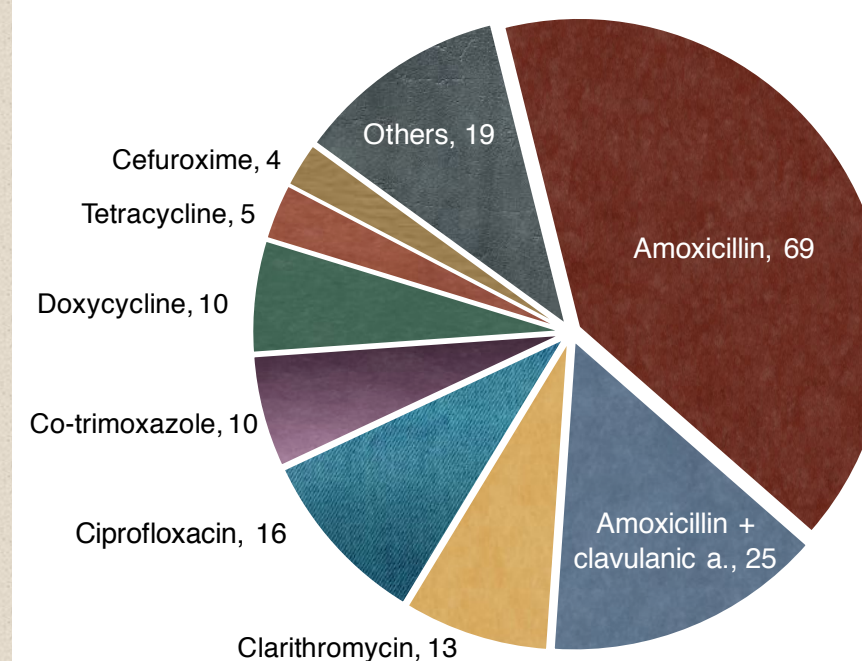


Figure 5. Most common reported antibacterial drugs present at home.

Conclusions

The intended self-medication is prevalent among all the research groups. While there were some differences regarding inappropriate antibiotic use among the groups, most of them were not statistically significant. This means that measures should be taken targeting health care givers as well as a general population.

Prevalent antibiotic storage at home is a concerning factor that may be associated with leftover antibiotics and predispose self-medication.

One of the most noticeable problems is the prevalent acquisition of the prescription for antibacterial drugs from the colleague or a familiar physician, which is often being associated with irrational antibiotic use.

Encouraging the use of electronic prescription, improving the knowledge about rational use of antibiotics, dispensation of exact antibacterial tablet quantities in pharmacies should be considerable aspects, reducing the prevalent inappropriate antibiotic use.

References

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