



Determine Awareness Related to Antibiotic Use and Resistance Among Patients, Doctors, Pharmacists at Outpatient Department, Colombo North Teaching Hospital



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Introduction

Antibiotic resistance is one of the leading issues faced by the world currently & has become a global emergency. Misuse due to inadequate knowledge may have a direct relationship with this issue. Patients who are prescribed, doctors who prescribe & pharmacists who dispense antibiotics need to have sufficient awareness on its appropriate use and antibiotic resistance.

Objective

To determine awareness regarding antibiotic use and resistance among patients, doctors and pharmacists at Outpatient Department (OPD), CNTH, Ragama.

Method

Study design: Cross sectional descriptive study

Study setting: OPD, Colombo North Teaching Hospital

Study period: December 2018 – August 2020

Study population: Patients of age between 18 – 50 who have been prescribed an antibiotic, pharmacists working at OPD, doctors working at the OPD.

Sample: 384 patients (sample size was statistically calculated for an estimate of proportion of 50% patients with >40% marks for the questionnaire), pharmacists (10), doctors (26) – data collected between November and December, 2019

Data collection instruments:

- Interviewer administered questionnaire for patients (questions given under 5 domains)
- Self-administered questionnaires for doctors and pharmacists.

Data processing and analysis:

Data of three samples were analyzed separately. Patients - descriptively using graphs and charts
Pharmacists and Doctors - descriptively (as only 8 pharmacists and 10 doctors consented to participate in study)

Results

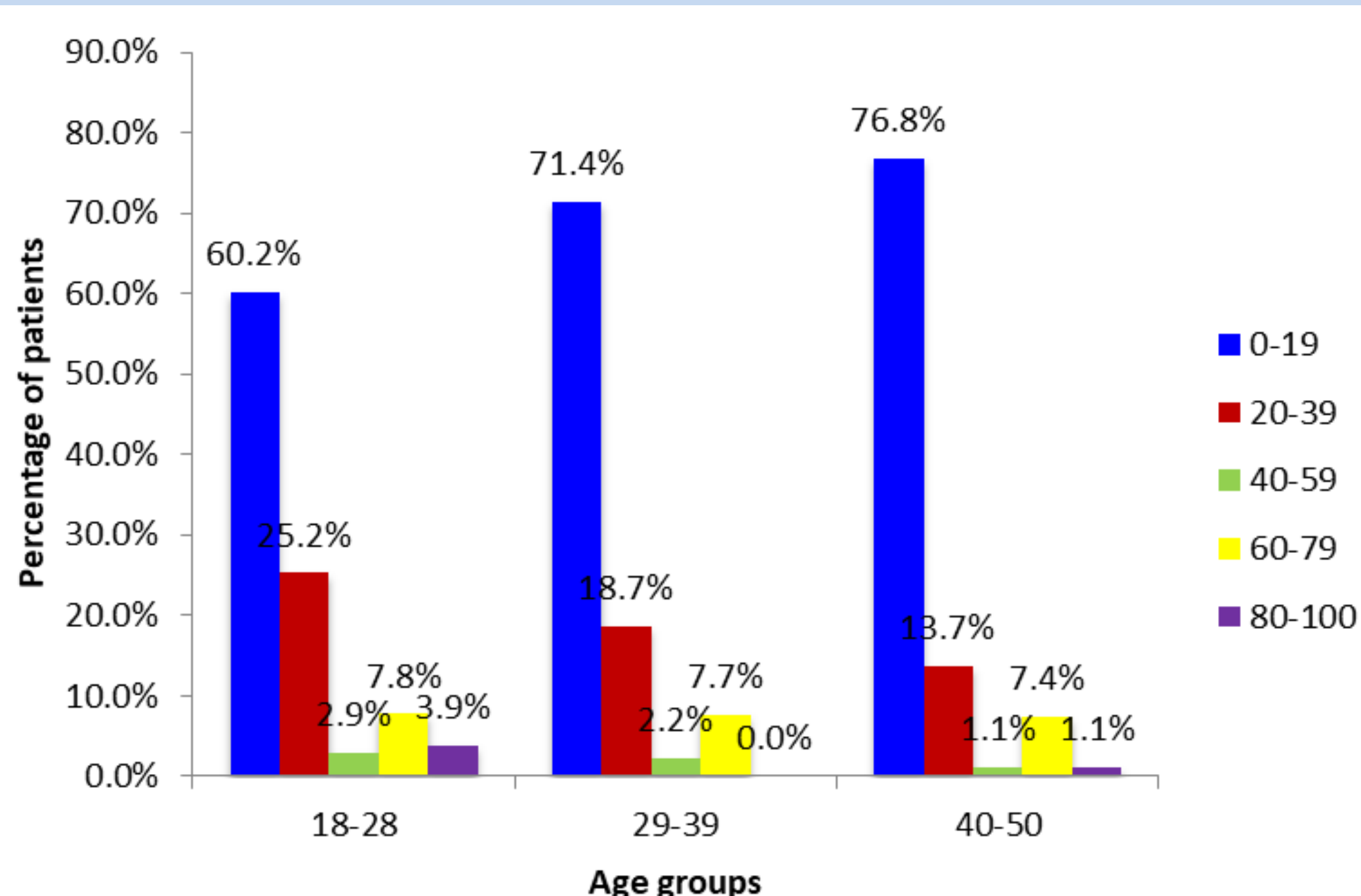


Chart 1: Patients' general knowledge on antibiotics and antibiotic resistance (Domain 1) vs. Age groups

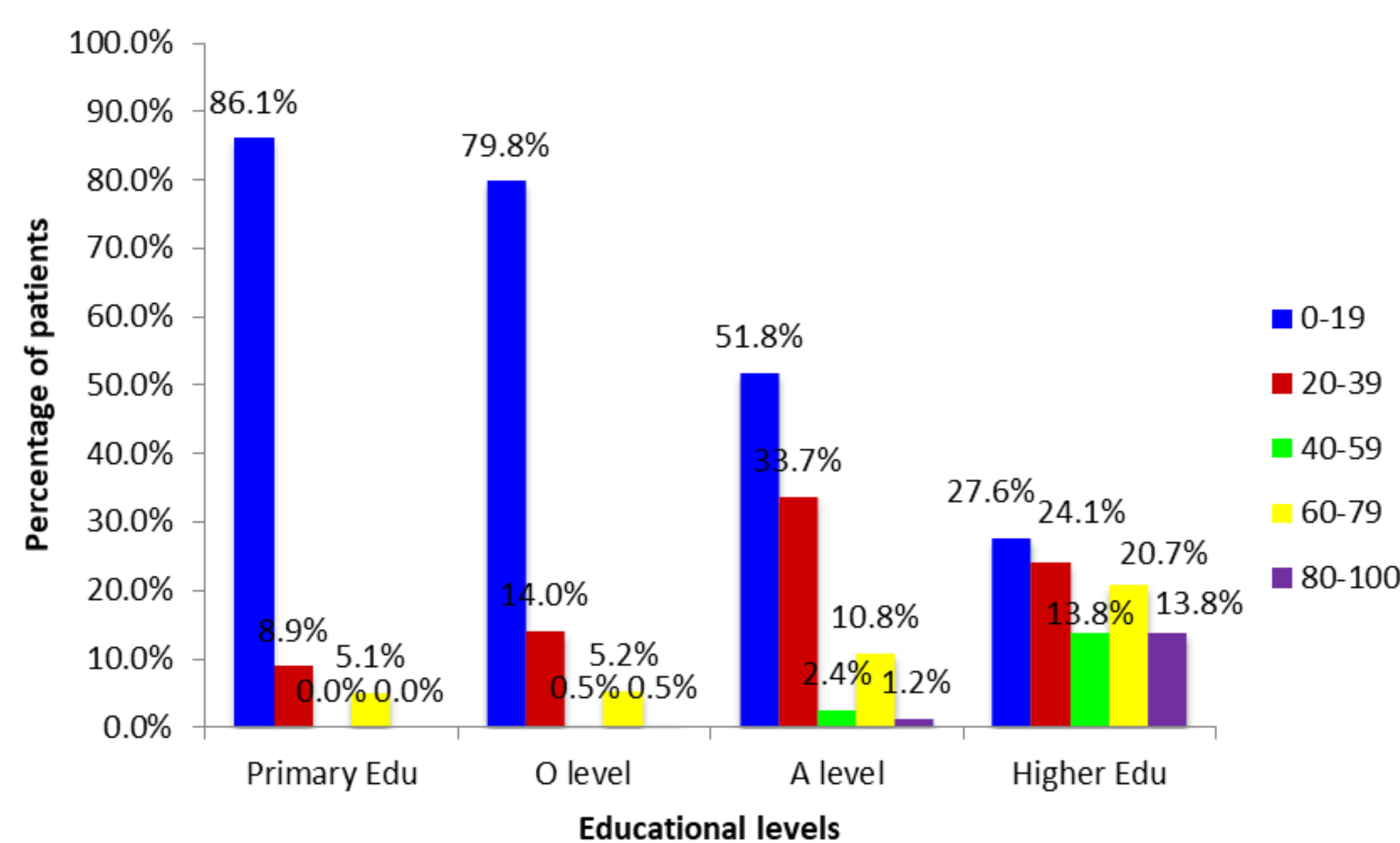


Chart 2: Patients' general knowledge on antibiotics and antibiotic resistance (Domain 1) vs. Educational levels

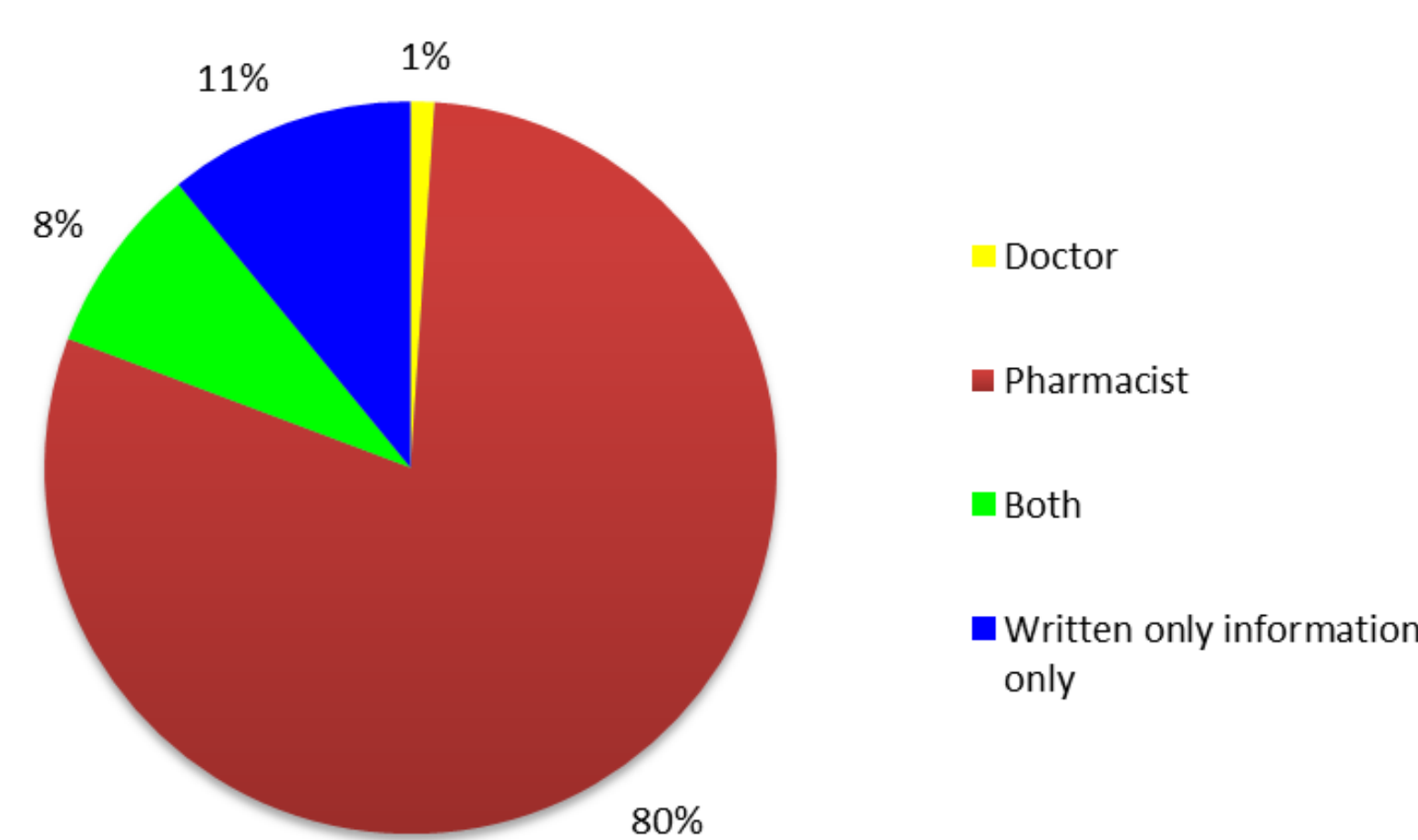


Chart 3: How patients received information on correct use of antibiotics (Domain 2)

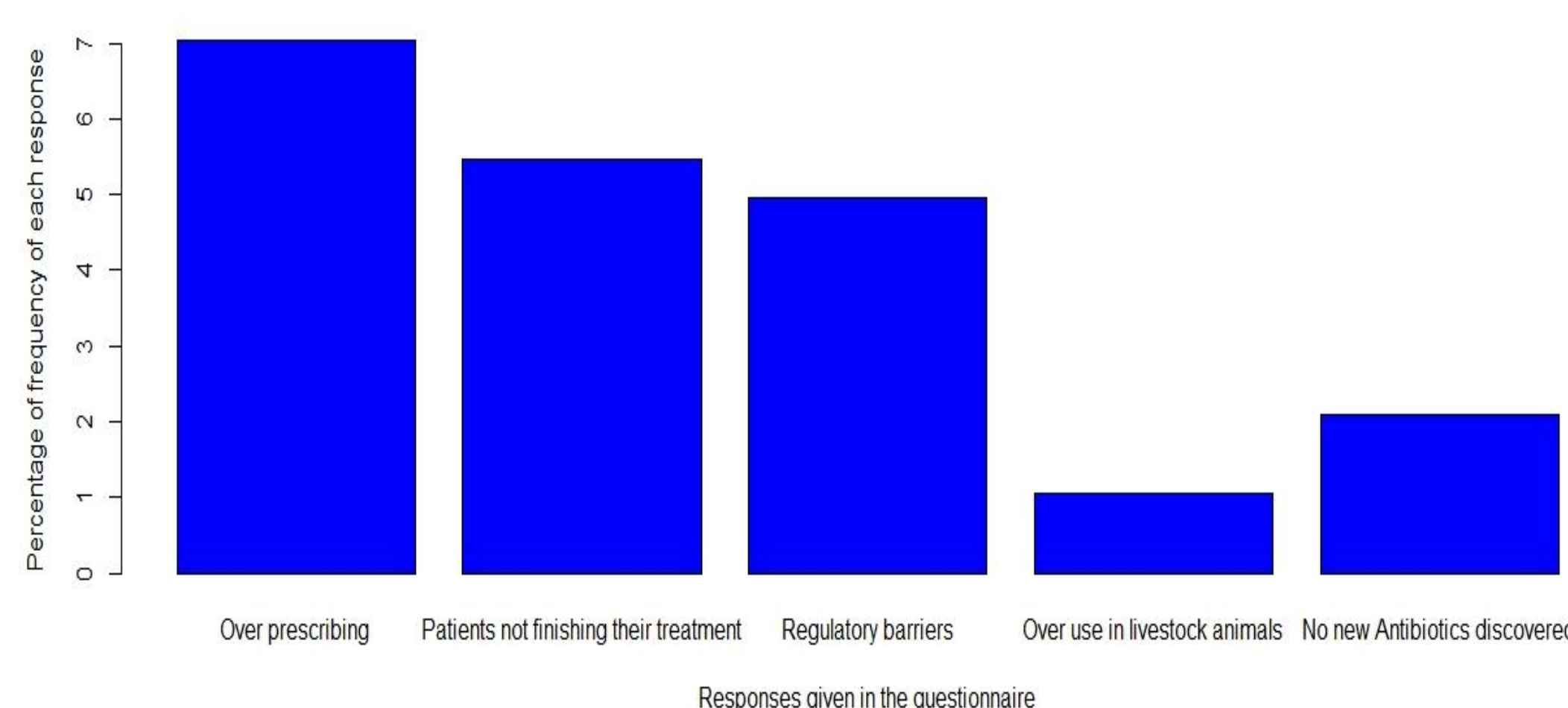


Chart 4: The responses selected by patients as reasons for antibiotic resistance (Domain 3)

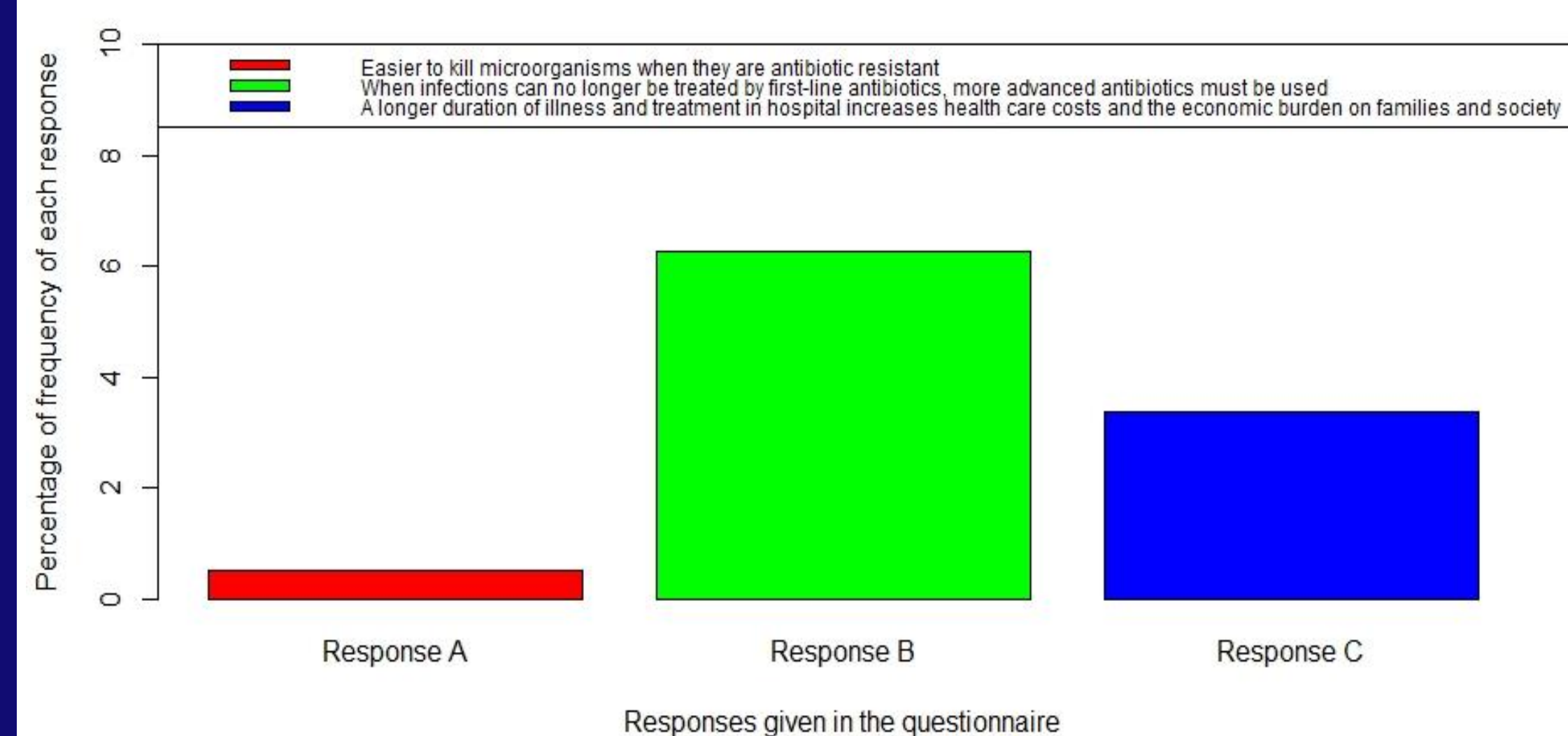


Chart 5: The responses selected by patients as impacts of antibiotic resistance (Domain 4)

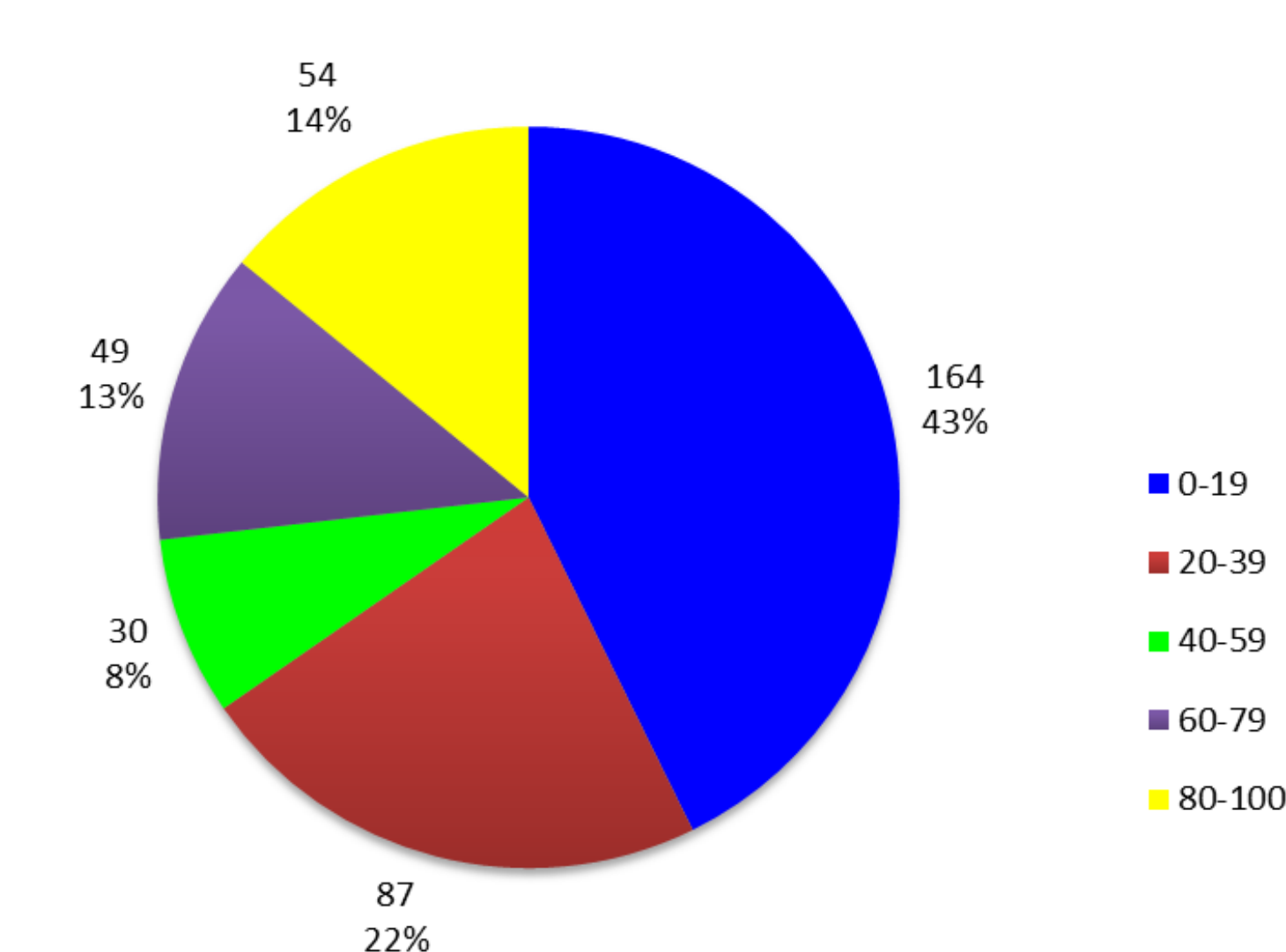


Chart 6: Distribution of percentages of marks for questions on correct use and misuse of antibiotics (Domain 5)

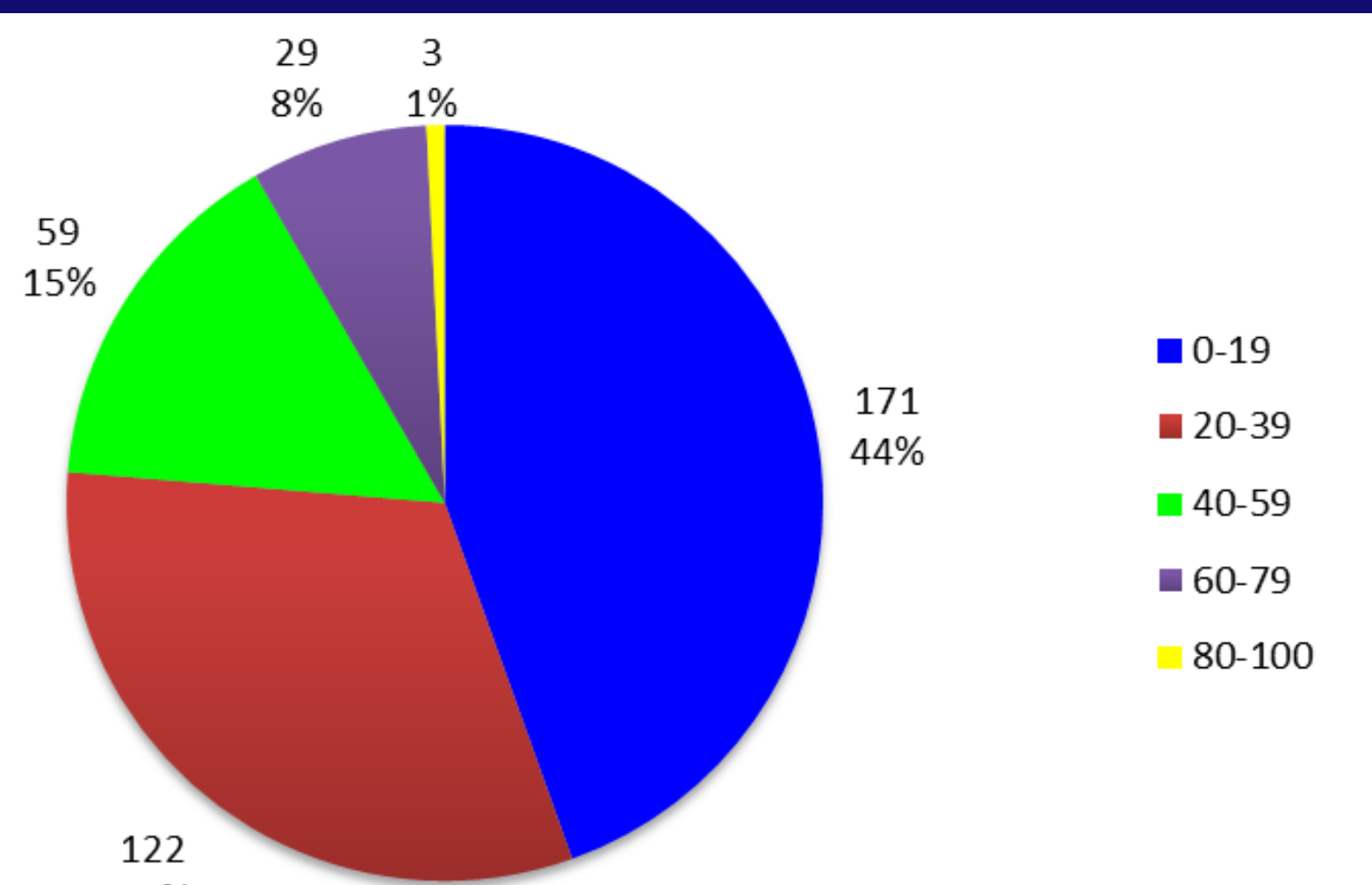


Chart 7: Distribution of percentages of total marks of all 5 domains in questionnaire (Final score)

91 patients out of 384 (23.7%) - Final score >40%.

The chi square test of association indicates that there is a statistical significance between patients' general knowledge on antibiotics and antibiotic resistance and their educational level.

All doctors and pharmacists who participated in the study had sufficient knowledge on antibiotic resistance, reasons for developing it and impacts of antibiotic resistance. All of them explain the patients on how to use antibiotics verbally. All pharmacists informed the patients in writing. However, none of them explained about antibiotic resistance.

Conclusion

- 23.7% of patients have adequate knowledge on antibiotics use and resistance.
- Very few were aware of reasons for developing antibiotic resistance (5.9%) and impacts of it (7.5%).
- Doctors and pharmacists gave patients the verbal instructions on how to use antibiotics, but they did not explain about development of resistance if antibiotics are misused.

Recommendation

- Findings of this study indicate that there is a need to complete the gap of knowledge of patients. To achieve this it is recommended to display posters and distribute leaflets with relevant information in outpatient department waiting areas.

References

- WHO. Antibiotic resistance: Multi-country public awareness survey. Geneva. 2015: 9 – 25
- SL ministry of health. National Strategic Plan for Combating Antimicrobial Resistance in Sri Lanka 2017 – 2022. 1st ed. Sri Lanka: SL ministry of health, 2017 : 2

Acknowledgement

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