

Knowledge, Attitude and Practice of Prescribers on Antibiotic Use



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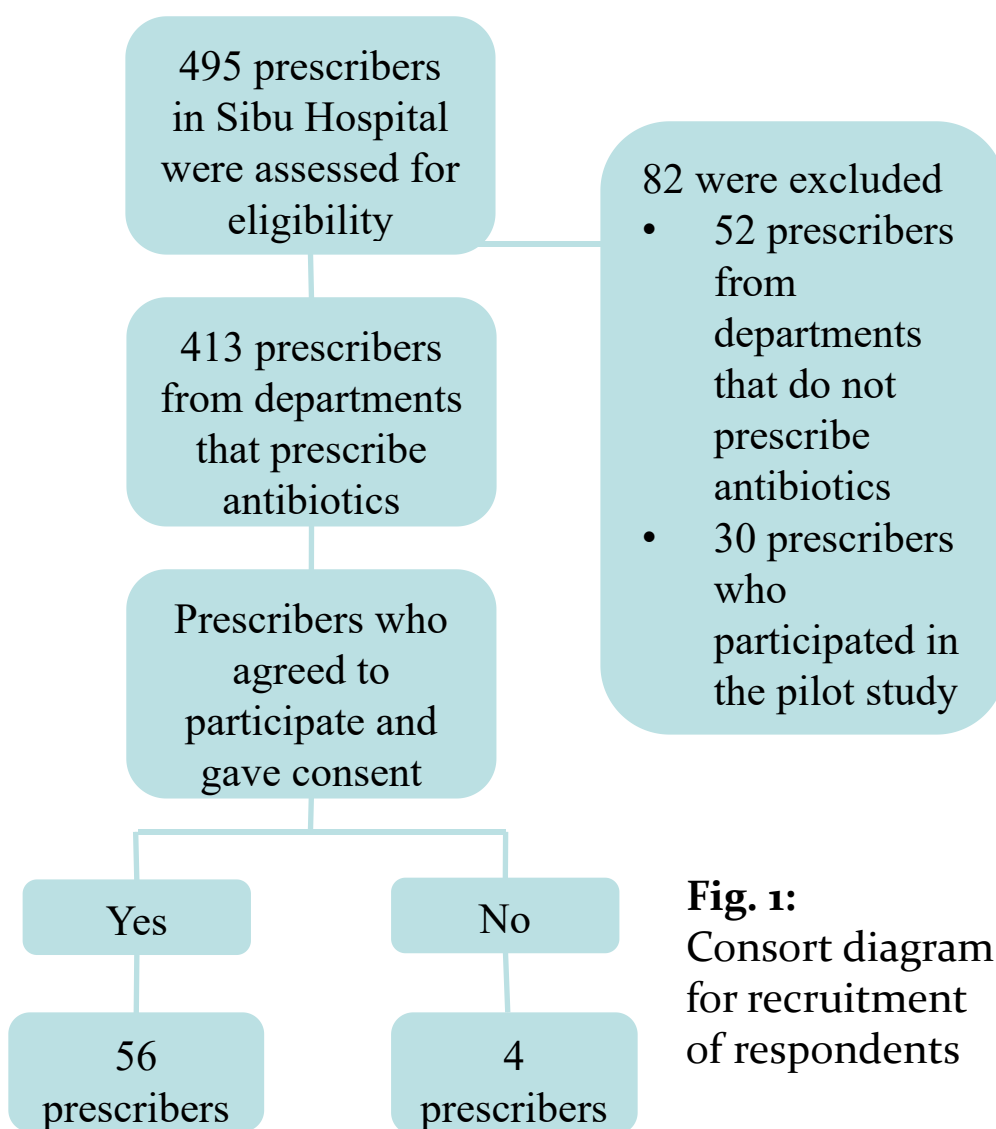
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Introduction

- The increase in antimicrobial resistance (AMR) is a worldwide health issue, which can lead to prolonged illness, increased healthcare cost, morbidity and mortality.
- This fuels the need for new drugs but no new major class of antimicrobial has been found since late 1980s.¹
- AMR is also an issue in Sibu Hospital as internal report showed 626 cases of multidrug-resistant organisms between January to November 2018.
- Excessive use and misuse of antibiotics are considered the primary factors that accelerate the AMR process.¹
- This study aims to study the knowledge, attitude and practice (KAP) of prescribers in Sibu Hospital on the rational use of antibiotics and AMR.

Material and methods

- A cross-sectional, observational study was conducted between September to November 2019 in Sibu Hospital.
- A self-administered online questionnaire adopted and modified from an earlier study² ($\alpha=0.654$) was used.
- The link to the online questionnaire (created using Google Forms) was emailed to the prescribers.



- Data were analysed using SPSS software.

Results

Table 1: Demographics

Average Age	28 years
Male	44.6%
Average Years of Experience	3 years

Response rate: 14.5%

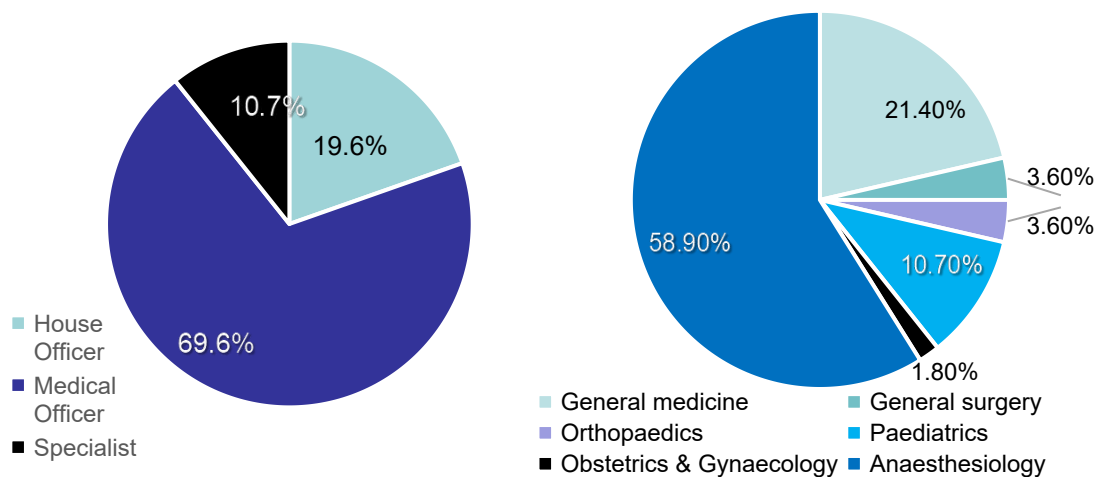


Fig. 2: Proportion of prescribers in different levels of position

Fig. 3: Proportion of prescribers in different departments

Results

Knowledge



Fig. 4: Proportions of correct and wrong answers in the knowledge section.

Attitude

- Most of the prescribers acknowledged that AMR is a problem at the global, national and local levels.
- The levels of position did not affect their confidence on antibiotic use ($P=0.678$).
- All respondents would review antibiotic prescriptions with a senior colleague.
- Almost all respondents agreed on the importance of knowledge on antibiotics in their career and would like to have educational programmes on antibiotic use.

Practice

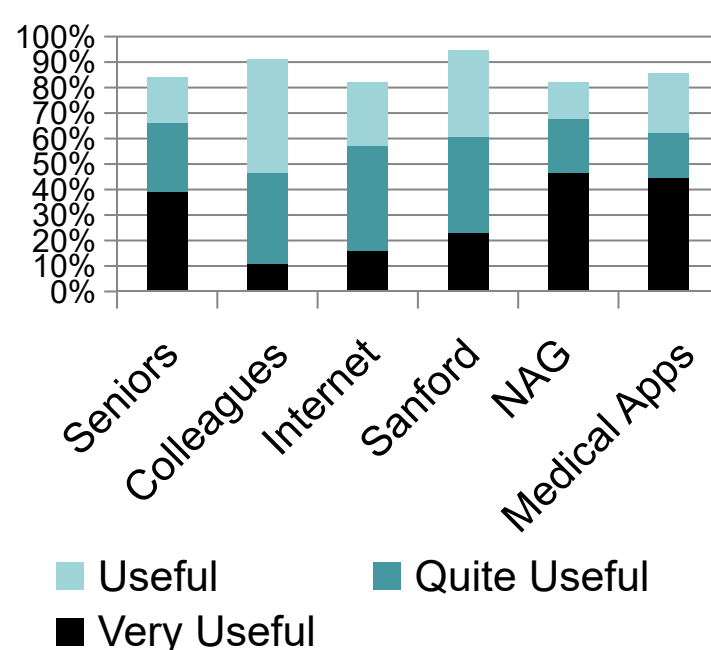


Fig. 5: Usefulness of different sources of information.

- 44.6% of prescribers agreed that patient's demand for antibiotics contribute to overuse in their practice.
- Less than half (37.5%) of the respondents would avoid the use of restricted antibiotics due to need to apply for approval.

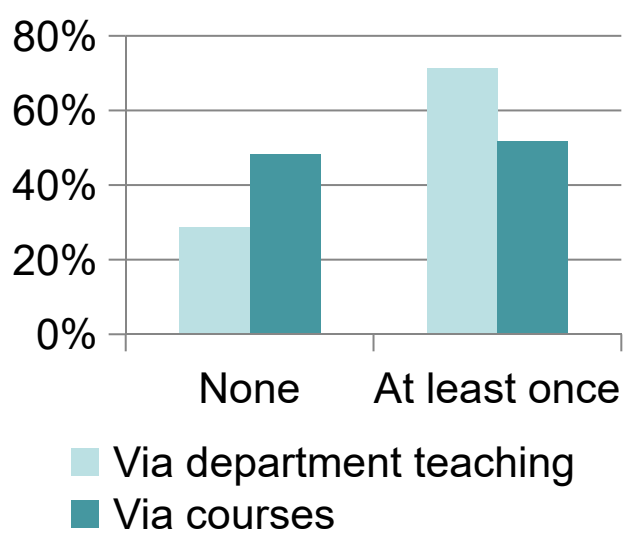


Fig. 6: Antibiotic teaching received during 2018.

Discussion

- More than half of the prescribers were unable to answer the questions on dosage reduction of antibiotics and local resistance rate.
- Awareness of AMR was high among the respondents, which is also observed in studies in Peru and Kedah.^{2,3}
- Most of the respondents reported that information from senior colleagues were useful and all of them would review antibiotic prescriptions with senior colleagues.
- Antibiotic teaching should be enhanced as about 25% of the prescribers did not receive any form of antibiotic teaching at all in 2018.
- The main limitation of this study was the low response rate. There may be different understanding or interpretation of the questions as this was a self-administered questionnaire. Social desirability bias may be present.

Conclusion

- The prescribers in Sibu Hospital had moderately good knowledge on rational use of antibiotics.
- Antibiotic teaching should be enhanced. Target areas in future educational interventions may include dosage reduction of antibiotics and local resistance rate.
- Dissemination of information on local resistance rate need to be improved to enhance their knowledge on local resistance rate.
- In future, this study could be improved with a better research method, for example an interviewer-administered questionnaire.

Acknowledgement

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