

# Knowledge, Attitudes, and Practices (KAP) About Antibiotic Use in Hemodialysis Patients with Chronic Kidney Disease and Their Household Contacts [Letter]

Irsanty Collein <sup>\*</sup>, Andi Fatmawati Syamsu <sup>\*</sup>, Baiq Emy Nurmalisa<sup>\*</sup>

Department of Nursing, Poltekkes Kemenkes Palu, Palu, Indonesia

<sup>\*</sup>These authors contributed equally to this work

Correspondence: Irsanty Collein, Faculty of Nursing, Poltekkes Kemenkes Palu, Thalua Konchi Street Number 09, North Palu, Palu, Center Sulawesi, Indonesia, Email collein2002@gmail.com

## Dear editor

We have read the paper by Daniela Montoya-Urrego et al on Knowledge, Attitudes, and Practices (KAP) About Antibiotic Use in Hemodialysis Patients with Chronic Kidney Disease and Their Household Contacts.<sup>1</sup> This study is very interesting because the problem of antibiotic resistance is still a problem. complex that affects all levels of society, this resistance is caused by the irrational and excessive use of antibiotics due to a lack of public knowledge regarding the side effects of antibiotics.<sup>2</sup> We would like to share our views which focus on the knowledge, attitudes and practices of the community towards the use of antibiotics which can be purchased freely around us.

The study conducted by Daniela Montoya-Urrego et al aims to describe knowledge, attitudes and practices (KAP) regarding the use of antibiotics and bacterial resistance in hemodialysis patients, and found that there are still many knowledge gaps regarding bacterial resistance and the use of antibiotics, which results in increased consumption and resistance and lack of patient adherence to recommendations in treatment.<sup>1</sup> However, the increase in the number resistance of antibiotic does not only depend on patient knowledge but is also caused by inadequate prescription of antibiotics and their excessive use, especially in primary care for the limitation and control of prescribed antibiotics,<sup>2</sup> coupled with inappropriate prescribing, and inappropriate consumption can be the main factors contributing to the increase in antibiotic resistant cases.<sup>3</sup>

The study conducted by Daniela Montoya-Urrego et al used a cross-sectional descriptive study conducted on hemodialysis patients from the kidney unit in a hospital with the KAP instrument applied to the participants during home visits.<sup>1</sup> This method is quite effective in measuring the gap in patient knowledge of antibacterial resistance. However, we would like to suggest that the KAP instrument be continued with Latent class analysis (LCA) to group respondents based on their responses so that the results can be more accurate.<sup>4</sup> Particularly for hemodialysis patients, an assessment of clinical records and previous laboratory tests should be carried out so that the results of the study can provide input for modifying antimicrobial resistance which is directly related to the development of the disease.<sup>5</sup>

In conclusion, we agree that there are still many knowledge gaps about bacterial resistance and the use of antibiotics, which can lead to increased consumption and antibiotic resistance.<sup>1</sup> However, we would like to share new information that antimicrobial resistance can affect the development and development of kidney disease and the presence of antibiotic resistance genes may change as long as the patient suffers from kidney disease, so further research is needed to advance understanding of this relationship.<sup>5</sup> Another important thing to consider is that the administration of antibiotics must comply with standard recommendations of specialists, antimicrobial spectrum, route of administration, dosage, and duration of

treatment.<sup>2</sup> A campaign is needed regarding limiting the accessibility of antibiotics and ensuring the rational use of antibiotics so that the problem of antibiotic resistance can be suppressed.<sup>3</sup>

## Disclosure

All author reports no conflict of interest in this communication.

## References

1. Montoya-Urrego D, Velasco-Castaño JJ, Velez JCQ, Quiceno JNJ. Knowledge, attitudes, and practices (KAP) about antibiotic use in hemodialysis patients with chronic kidney disease and their household contacts, Medellín-Colombia. *Infect Drug Resist.* 2023;16:1725–1736. doi:10.2147/IDR.S392680
2. Voidăzan S, Moldovan G, Voidăzan L, Zazgyva A, Moldovan H. Knowledge, attitudes and practices regarding the use of antibiotics. Study on the general population of Mureș County, Romania. *Infect Drug Resist.* 2019;12:3385–3396. doi:10.2147/IDR.S214574
3. Sakr S, Ghaddar A, Hamam B, Sheet I. Antibiotic use and resistance: an unprecedented assessment of university students' knowledge, attitude and practices (KAP) in Lebanon. *BMC Public Health.* 2020;20(1):1–9. doi:10.1186/s12889-020-08676-8
4. Pogurschi EN, Petcu CD, Mizeranschi AE, et al. Knowledge, attitudes and practices regarding antibiotic use and antibiotic resistance: a latent class analysis of a Romanian population. *Int J Environ Res Public Health.* 2022;19(12):7263. doi:10.3390/ijerph19127263
5. Miranda MV, González FC, Paredes-Godoy OS, Maulén MA, Vásquez† CC, Díaz-Vásquez WA. Characterization of metal(loid)s and antibiotic resistance in bacteria of human gut microbiota from chronic kidney disease subjects. *Biol Res.* 2022;55(1):1–12. doi:10.1186/s40659-022-00389-z

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Infection and Drug Resistance 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Infection and Drug Resistance editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

### Infection and Drug Resistance

Dovepress

### Publish your work in this journal

Infection and Drug Resistance is an international, peer-reviewed open-access journal that focuses on the optimal treatment of infection (bacterial, fungal and viral) and the development and institution of preventive strategies to minimize the development and spread of resistance. The journal is specifically concerned with the epidemiology of antibiotic resistance and the mechanisms of resistance development and diffusion in both hospitals and the community. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/infection-and-drug-resistance-journal>

<https://doi.org/10.2147/IDR.S417464>