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Letter to the Editor: Strengthening Antimicrobial Resistance Control Practice at Dr. M. Djamil Central General Hospital Padang, Indonesia

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Abstract

Dr. M. Djamil Central General Hospital (*RSUP Dr. M. Djamil*) Padang has been at the forefront of efforts to combat antimicrobial resistance (AMR) through a comprehensive antimicrobial stewardship program guided by the Antimicrobial Resistance Control Committee (KPRA). The program focuses on three key components: surveillance, research, and education. Notable achievements include significant reductions in inappropriate antibiotic use, enhanced treatment strategies, and improved patient outcomes. A robust surveillance system has tracked both the quantity and quality of antibiotic use, leading to a marked increase in rational antibiotic prescriptions. Additionally, the implementation of antibiotic sensitivity patterns has allowed for more targeted therapies, particularly in treating multidrug-resistant organisms. Multidisciplinary collaboration through the *Forum Kajian Kasus Infeksi Terintegrasi* (*FORKKIT*) has further optimized patient care. Ongoing research into advanced diagnostic tools, such as RT-PCR, has advanced AMR control efforts, contributing to more precise treatments. Despite these successes, the continued prevalence of multidrug-resistant infections highlights the need for sustained efforts in surveillance, research, and education. Looking forward, *RSUP Dr. M. Djamil* Padang aims to reduce the incidence of these infections, improve prophylactic antibiotic administration, and align practices with national and international guidelines. The hospital's commitment to advancing research and collaboration is vital in the global effort to preserve antibiotic effectiveness for future generations.

Keywords: *Antimicrobial resistance, antimicrobial stewardship, surveillance, multidrug-resistant organisms, antibiotic sensitivity patterns*

Dear Editor,

Dr. M. Djamil Central General Hospital (*RSUP Dr. M. Djamil*) Padang has been at the forefront of efforts to combat antimicrobial resistance (AMR), implementing a comprehensive antimicrobial stewardship program under the guidance of the Antimicrobial Resistance Control Committee (*KPRA*). This program focuses on three core components: surveillance, research, and education. Together, these elements have allowed us to significantly reduce inappropriate antibiotic use, optimize treatment strategies, and ultimately improve patient outcomes.[1]

Central to the success of the program is our surveillance system, which continuously monitors both the quantity and quality of antibiotic use. Quantitative surveillance has helped us track the consumption of key antibiotics, such as Meropenem, with notable reductions in usage over recent months.[2] Meanwhile, qualitative surveillance has focused on assessing the appropriateness of antibiotic prescriptions, ensuring that our medical staff adheres to evidence-based guidelines for rational antibiotic use. The results are encouraging, showing a significant

increase in rational antibiotic prescriptions and a decrease in the number of inappropriate or unnecessary treatments.[2,3]

Another pivotal achievement has been the generation and application of antibiotic sensitivity patterns. These patterns have proven invaluable in guiding clinical decisions, particularly in treating infections caused by multidrug-resistant organisms (MDROs).[4] By aligning our treatment strategies with these patterns, we are able to provide more targeted, effective therapies, reducing both the risk of resistance development and the unnecessary use of antibiotics.[5]

An essential aspect of our approach is the integration of multidisciplinary collaboration through the *Forum Kajian Kasus Infeksi Terintegrasi* (*FORKKIT*). This forum brings together specialists from various fields to discuss and manage complex infection cases. By fostering teamwork and enhancing communication between healthcare providers, *FORKKIT* ensures that patients receive coordinated and comprehensive care, improving the management of infections and contributing to better outcomes.[1,6]

In addition to surveillance and collaboration, our research initiatives have played a crucial role in advancing our AMR control efforts. One key area of focus has been the validation of advanced diagnostic tools such as RT-PCR for detecting antimicrobial-resistant pathogens. Our ongoing research, including the validation of CrownLab® Pneumoplex for detecting *Klebsiella pneumoniae*, *Acinetobacter baumannii*, and *Staphylococcus aureus*, has demonstrated the potential for improving diagnostic accuracy and enabling more precise treatments, particularly in sepsis management. These findings contribute to refining clinical protocols and help ensure that our treatments are grounded in reliable, up-to-date evidence.[1,6]

While we have made significant strides in reducing inappropriate antibiotic use and improving patient care, challenges remain. The prevalence of infections caused by multidrug-resistant organisms continues to pose a significant threat, underscoring the need for ongoing surveillance, research, and education. Looking ahead to 2026, our focus will be on reducing the incidence of such infections, improving the timeliness of prophylactic antibiotic administration, and ensuring that our practices align with national and international guidelines.[1,6]

RSUP Dr. M. Djamil Padang's comprehensive approach to combating AMR has proven successful in optimizing antibiotic use, reducing the spread of resistant pathogens, and improving patient outcomes. However, we recognize that the fight against AMR is ongoing. Our team remains dedicated to advancing our efforts, confident that with continued research, education, and collaboration, we can further reduce the burden of AMR and contribute to the global effort to preserve the effectiveness of antibiotics for future generations.

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Authors' Note

This letter is dedicated to the team at RSUP Dr. M. Djamil Padang, who have made significant contributions to the antimicrobial resistance control efforts. The team has been instrumental in the design, implementation, and management of the antimicrobial stewardship program. Their ongoing work in surveillance, research, and education has played a crucial role in reducing inappropriate antibiotic use, optimizing treatment strategies, and improving patient outcomes at the hospital

Declarations of competing interest

No potential competing interest was reported by the authors.

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