

---

## *ŠSSFD Position paper “Pharmacists’ role in combating AMR, dispelling myths and increasing its awareness”*

---

*The Students’ section of the Slovenian Pharmaceutical Society (ŠSSFD) is the national association that represents 950 pharmacy students in Slovenia. ŠSSFD recognises antimicrobial resistance (AMR) as an immediate global threat and is attempting to combat the issue by raising awareness.*

The use of antibiotics (ABs) in Slovenia is mostly very well regulated as they are dispensed in a pharmacy with a prescription only. Reducing the concentration of pharmaceuticals in the environment has proven to play an important role in combating AMR. For this reason, Slovenian pharmaceutical companies are legally obliged to ensure the treatment of wastewater. However, the lack of water treatment plants is still an issue in hospitals, nursing homes and other facilities, where AB metabolites find a way back into the environment through sewage, subsequently also emerging in drinking water.

Loose guidelines concerning AB prescriptions contribute to the overprescribing of ABs for human and veterinary use. Moreover, the national statistics record that broad-spectrum ABs are often prescribed without microbiological testing or even proper diagnosis. The fact, that between 25% and 75% of AB prescriptions in long-term care facilities are inappropriate in terms of their indication, choice, dose or duration of therapy, is of great concern. One of the key elements is also the lack of awareness in society of how to properly use, store and discharge medicines. We have a promising national system of returning unused and expired medicines to local pharmacies, which have to ensure their proper disposal, but according to recent observations, the system still isn't widely used. The problem of resistant bacteria is rising at an alarming rate and with it the need to find solutions.

To overcome the problem it is of utmost importance to educate society and create a plan to efficiently tackle AMR, which can be achieved by means of public health campaigns, educational lectures and symposiums. ŠSSFD has organised their first interprofessional congress together with students of medicine and microbiology. The problem of AMR was presented from different points of view and the significance of the One Health approach was brought to light. ŠSSFD believes that this global burden, which encompasses overprescribing of ABs for human and veterinary treatments as well as its quantity in water due to lack of water treatment plants and inappropriate handling of medicines, may be limited only by a collaboration of all crucial healthcare segments working together for better health. The purpose was also to include all generations, so we launched a project for children, in which teachers would read an educational story about ABs to children. The project was later expanded into art education and lectures about hygiene.

ŠSSFD recognises other obstacles for delivering functional ABs therapy. One is the lack of consulting with the patient, which applies to doctors, clinical pharmacists and community pharmacies. Possible solutions are already in the development since numerous pharmacies are equipped with the newest electronic systems that help pharmacists to focus more on consulting the patient. On the other hand, clinical pharmacy is still not widely developed. Likewise, the country is facing a lack of personnel, funding and IT support. One of the priorities is also to update the existing e-prescribing system, which would require AB indication and duration of treatment in accordance with strict guidelines.

All in all, ŠSSFD encourages healthcare professionals to not only perform appropriate microbiological tests to ensure a proper diagnosis but also to obey to follow the treatment, the guidelines of prescribing ABs and to improve them accordingly. ŠSSFD urges the regulatory system to take a step forward in clinical pharmacy, to invest in IT, sewage treatment plants and projects, which help to raise awareness about the proper use and handling of medicines. In order to improve health and the environment for future generations, ŠSSFD emphasizes the importance of the One Health approach due to the multidisciplinary nature of the issue.