Encouraging increased adherence to treatment standards through drug utilization reviews in Ukraine

When doctors and patients fail to adhere to proper standards of treatment, it results in a higher disease burden, including greater financial costs, mortality, and morbidity. In Ukraine, the need to encourage better adherence to standard treatment guidelines became clear in 2011, when a study by SIAPS' predecessor, the Strengthening Pharmaceutical Systems (SPS) Program, found that only 13% of 240 reviewed TB cases in the Kyiv Oblast, an administrative division in central Ukraine, were treated in accordance with the national treatment guidelines.

Drug utilization reviews (DURs) are a highly useful tool to identify common problems in medicines management, such as incorrect dosing and avoidable adverse drug reactions, and can thereby be used to encourage adherence to treatment guidelines. DURs offer a means for analysis of rational medicine use (RMU), and, if implemented on a constant basis, provide valuable data for decision making on services enhancement. SIAPS Program carried out a DUR pilot in Ukraine in 2015, which highlighted both improvements and remaining challenges of medicines use in the Ukrainian context.

"DURs are an effective tool for the monitoring of treatment processes and ensuring doctors' adherence to national treatment guidelines, which leads to better treatment results."

- *Vasyl Shurypa, Chief Physician, Kyiv Oblast TB Dispensary*

Challenges in rational medicine use

While preventable cardiovascular diseases are the top cause of death in Ukraine, the country also has one of the heaviest TB epidemics in Europe. It is also the only country in Eastern Europe with a health care system that has remained unreformed since the late 1980s. All these issues call for rational use of medicines as a way to ensure cost-efficient spending of public funds for better health outcomes.

"The valuable advantage of the DUR is its universality and applicability, which allows this tool to be widely used to support health system strengthening in Ukraine," said Tatiana Dumenkik, the head of the Rational Pharmacotherapy Department of the MOH's State Expert Center.

Crucial to the overall success of DURs is the level of cooperation between the different stakeholders involved in the process. A major challenge at the beginning of the DUR pilot in Ukraine was that the stakeholders—the Ukrainian Center for Disease Control (UCDC), the State Expert Center (SEC) and academics—did not comprehend their common responsibility and their roles in ensuring the rational use of TB medicines.

To mitigate this challenge, the project called for early and active involvement of stakeholders in key DUR processes, and provided clear justification of the DUR's purpose and methods. It is critical for stakeholders to understand that the purpose of the DUR is not to punish underperformance, but rather to improve RMU and health outcomes.

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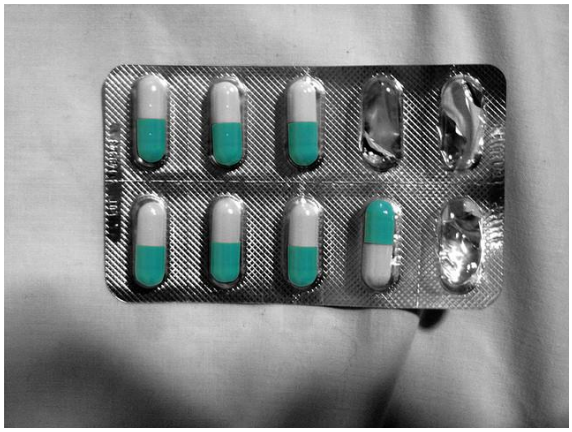
The piloting of the DUR

The DUR methodology used in Ukraine was developed by MSH and successfully implemented in Kenya. The process consists of three parts: a methodology, a comprehensive set of criteria for medicines use, and data collection forms. SIAPS-Ukraine supported the adaptation of both the criteria and data collection forms for local use.

The Kyiv Oblast TB Dispensary was selected to host the DUR pilot due to its previous participation as the focus of an 2011 SPS study on treatment guideline adherence. SIAPS and local stakeholders felt it was important to determine whether changes had been put in place following recommendations of the initial study. According to preliminary results of the DUR, adherence to the guidelines in the oblast has increased by fourfold, to 55% of the 40 cases assessed. Though an improvement from the 2011 numbers, this level of adherence is still unacceptable and calls for a thoughtful and consistent response to build upon the progress made in four years.



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Doctors and administrators in the facility had a positive attitude towards the concept of rational use in general. However, it soon became apparent that managers of the facility, like the stakeholders, expected the DUR to be an audit-like procedure and they were afraid of possible consequences. Doctors did not understand their role in and potential results of the process, so they were in many cases reluctant to provide the necessary data—an obstacle that caused substantial delays. As with the stakeholders, efforts were made to make facility staff aware that the DUR was not an audit, but rather a means of helping them improve and ensure their patients get the appropriate, proper and correct medicines..

Once data collection began, the underlying cause for reluctance was discovered. As the DUR pilot has revealed, there were more treatment regimens in use than stipulated by the national guidelines. This finding caused a need for a profound redesign of the protocol (set of criteria) and data collection forms, and also reemphasized the importance of DUR as a means to learn about and improve medicine use.

Results

Preliminary findings of the DUR pilot helped to understand the existing challenges in building adherence to the standards of treatment:

- At least 15 anti-TB treatment regimens were being used –far more than the eight stipulated by the guidelines.
- There were unjustified substitutions and eliminations of medicines within different regimens.

- Important laboratory tests are being neglected due to a lack of equipment and trained staff. A common example is an audiometric test, which should be (but is often not) performed before prescribing kanamycin in order to prevent hearing loss as a side effect.
- About 45% of intensive-phase patients were discharged for the ambulatory phase with treatment regimens that were not in line with the treatment guidelines.

These findings highlight the need for far-reaching organizational and technological changes to increase adherence to treatment guidelines and improve health outcomes. Violations of treatment procedures increase the risk of TB becoming resistant to existing medicines. Indeed, multidrug-resistant TB (MDR-TB) now accounts for 14% of new TB cases in the country. Fighting the spread of TB—and particularly drug-resistant strains—depends on the adoption of DUR as a regular practice. This will require heightened capacity of health care facilities and regional health authorities. To address the problems raised in the DUR, a Pharmacy and Therapeutics (P&T) Committee was created in the Kyiv Oblast TB Dispensary. Although every health care facility is legally required to have a working P&T Committee, many facilities do not follow this requirement. DURs are necessary push for the creation of more P&T Committees in the country, and to help existing P&T Committees evaluate and improve medicines use.

Another important achievement was the new level of cooperation between national stakeholders. Before the DUR started, the stakeholders were not aware of each other's roles. This challenge was successfully resolved by extensive efforts of the SIAPS Ukraine team, who ensured education, coordination and communication between stakeholders. Following the pilot in the TB Dispensary, two regional AIDS Centers have begun participating in the DUR and awareness of and coordination between stakeholders has increased significantly.

This newfound coordination and enthusiasm for the DUR process will help Ukraine to ensure the rational use of TB medicines and improve health outcomes in line with the goals of SIAPS program and USAID.