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Short Communication

Strengthening Pharmacovigilance in Low and Middle-Income Countries for Safer Medicines

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DESCRIPTION

Several challenges hinder the development and implementation of strong pharmacovigilance systems in LMICs. These challenges include limited financial and human resources, lack of regulatory frameworks, inadequate training and low awareness among healthcare professionals and the general public. Addressing these challenges requires a multi-faceted approach, encompassing capacity building, regulatory strengthening and the integration of innovative technologies [1]. However, in Low and Middle-Income Countries (LMICs), the infrastructure and resources required to implement effective pharmacovigilance systems often lag behind those of high-income countries. Strengthening pharmacovigilance in these regions is essential to ensure the safe use of medicines and protect vulnerable populations from Adverse Drug Reactions (ADRs). This involves training healthcare professionals, regulatory authorities and other stakeholders in pharmacovigilance practices. Training programs should cover the identification, reporting and management of ADRs, as well as the use of pharmacovigilance tools and technologies [2-5]. By building a skilled workforce, LMICs can enhance their ability to monitor and respond to drug safety issues. Strong Regulatory frameworks are essential for effective pharmacovigilance. Many LMICs lack comprehensive pharmacovigilance regulations, resulting in fragmented and inconsistent practices. These guidelines should outline the roles and responsibilities of various stakeholders, reporting requirements and mechanisms for data collection and analysis. Increasing awareness among healthcare professionals and the public about the importance of pharmacovigilance is vital for improving ADR reporting rates. Educational campaigns can help raise awareness about the significance of reporting ADRs and the impact of pharmacovigilance on public health [6,7].

Additionally, simplifying the reporting process and providing accessible reporting platforms can encourage more healthcare providers and patients to report ADRs. Advancements in digital health technologies offer new opportunities for enhancing pharmacovigilance in LMICs. Electronic Health Records (EHRs), Mobile Health (mHealth) applications and other digital tools can streamline data collection, reporting and analysis [8]. For example, mHealth applications can enable healthcare professionals and patients to report ADRs directly from their mobile devices, improving the timeliness and accuracy of data. Additionally, data analytics and Artificial Intelligence (AI) can help identify patterns and trends in ADR reports, facilitating early detection of safety signals. Collaboration with international organizations and high-income countries can provide valuable support for strengthening pharmacovigilance in LMICs [9,10]. Organizations such as the World Health Organization (WHO) and the International Society of Pharmacovigilance (ISoP) offer resources, technical assistance and capacity-building programs to support LMICs in developing pharmacovigilance systems. Furthermore, sharing data and best practices across countries can enhance global drug safety efforts and promote a more unified approach to pharmacovigilance. One notable example of successful pharmacovigilance implementation in an LMIC is the Indian Pharmacopoeia Commission (IPC) and the Pharmacovigilance Programme of India (PvPI). Established in 2010, PvPI has made significant strides in improving pharmacovigilance in India. The program focuses on capacity building, public awareness and the integration of digital technologies for ADR reporting and analysis. Strong support from the Indian government has been instrumental in the development and implementation of PvPI.

CONCLUSION

Government funding and policy initiatives have facilitated the establishment of regional pharmacovigilance centers and the training of healthcare professionals. PvPI has conducted extensive training programs for healthcare professionals, raising awareness about the importance of pharmacovigilance and improving ADR reporting rates. These programs have also equipped healthcare providers with the skills needed to identify and manage ADRs effectively. These tools have improved the efficiency and accuracy of data collection, enabling timely detection of safety signals. PvPI has launched several public awareness campaigns to educate the general public about the

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significance of pharmacovigilance. These campaigns have encouraged patients to report ADRs, contributing to a more comprehensive understanding of drug safety. Collaboration with organizations such as WHO has provided technical assistance and resources to support PvPI's efforts.

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