IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, October 2025
Impact Factor: 7.67

Post-Marketing Surveillance of Antihypertensive Drugs Based on Toxic Effects

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Abstract: *Pharmacovigilance is essential for monitoring and evaluating the safety of medications, especially regarding the long-term use of antihypertensive drugs. The goal of this study is to assess the toxic effects of different antihypertensive agents, with an emphasis on their adverse drug reactions (ADRs), and to identify patterns in the occurrence and intensity of these effects. A thorough analysis was performed using data obtained from clinical trials, post-marketing surveillance, and systems for reporting adverse events. The antihypertensive medications assessed include ACE inhibitors, angiotensin receptor blockers (ARBs), calcium channel blockers (CCBs), diuretics, and beta-blockers.*

The results show that some drug classes have greater risk profiles for common adverse consequences as electrolyte imbalances, renal failure, hypotension, and hyperkalaemia. For example, diuretics were linked to hypokalaemia and dehydration, whereas ACE inhibitors and ARBs were linked to a higher incidence of renal damage and hyperkalaemia. The study also looked at how drug interactions, comorbid illnesses, and patient demographics affect the incidence of adverse drug reactions.

This research underscores the importance of ongoing pharmacovigilance to detect and mitigate risks associated with antihypertensive therapies. It also emphasizes the need for personalized treatment approaches, regular monitoring, and timely reporting of adverse effects to optimize patient safety and improve clinical outcomes in the management of hypertension..

Keywords: Pharmacovigilance, Antihypertensive drugs, Adverse drug reactions (ADRs), Drug toxicity, Drug safety, Post-marketing surveillance, Adverse event reporting, Drug monitoring

DOI: 10.48175/568