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Short Communication

Impact of Medication Errors Reporting on Pharmacovigilance and Patient Safety

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DESCRIPTION

Medication errors represent a significant source of preventable harm within healthcare systems. These errors may occur at any stage of the medication-use process, including prescribing, dispensing, administration, and monitoring. Pharmacovigilance systems increasingly recognize the value of medication error reporting as part of comprehensive drug safety surveillance. Analysis of such reports supports identification of system weaknesses and development of strategies to improve patient safety.

Medication errors differ from adverse drug reactions in that they are not necessarily related to the pharmacological properties of a medicine. Instead, they often arise from human factors, communication failures, or system design issues. Despite this distinction, the consequences of medication errors can be severe, leading to adverse outcomes or reduced therapeutic effectiveness. Integrating medication error reporting into pharmacovigilance activities broadens the scope of safety monitoring (1-3).

Reporting systems for medication errors encourage healthcare professionals to document incidents and near-misses. Near-miss reports, where an error is detected before reaching the patient, provide valuable information on vulnerabilities within healthcare processes. Analysis of these events supports proactive safety improvement by addressing risks before harm occurs (4-6).

Pharmacovigilance databases that include medication error reports enable identification of recurring patterns. Errors related to similar drug names, confusing labeling, or complex dosing instructions may emerge through systematic review. Recognizing these trends supports targeted interventions such as labeling modifications, packaging changes, or educational initiatives.

Healthcare professionals play a central role in medication error reporting. A supportive reporting culture is essential to encourage participation. Non-punitive approaches that focus on learning rather than blame improve reporting rates and data quality. Education on the importance of reporting and how data are used supports engagement and trust in pharmacovigilance systems (7,8).

Pharmacists contribute significantly to medication error prevention and reporting. Their involvement in medication review, dispensing processes, and patient counseling positions them to identify potential risks. Reports from pharmacists often include detailed information on error circumstances, supporting meaningful analysis. Patients also provide important insights into medication errors, particularly those occurring outside healthcare facilities. Errors related to misunderstanding instructions or confusing packaging may be identified through patient reports. Including patient perspectives supports a more complete understanding of safety challenges associated with medicine use (9,10).

Analysis of medication error data informs development of risk reduction strategies. These may include simplification of dosing regimens, use of standardized order sets, and implementation of electronic prescribing systems with decision support. Evaluation of these measures determines their effectiveness in reducing error rates and improving outcomes. Regulatory authorities use medication error data to guide policy decisions and safety recommendations. In some cases, regulatory action may involve requiring changes to product information or packaging to reduce confusion. Collaboration between regulators, manufacturers, and healthcare providers supports implementation of effective solutions.

Technology plays an increasing role in medication error reporting and prevention. Electronic reporting systems facilitate timely submission and analysis of data. Integration with electronic health records supports automated detection of potential errors and enhances monitoring capabilities. Despite progress, challenges remain in achieving comprehensive medication error reporting.

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CONCLUSION

Medication error reporting significantly contributes to pharmacovigilance and patient safety. By capturing information on preventable incidents and system vulnerabilities, pharmacovigilance systems support targeted interventions that reduce harm. Strengthening reporting practices and fostering collaboration among stakeholders enhance the ability to improve medication safety across healthcare settings. Underreporting persists due to time constraints, fear of repercussions, or lack of awareness. Continued efforts to promote reporting culture and simplify reporting processes are necessary to maximize the value of pharmacovigilance data.

REFERENCES

1. Forbes A, Keleher MR, Venditto M, DiBiasi F. Assessing patient adherence to and engagement with digital interventions for depression in clinical trials: Systematic literature review. J Med Internet Res. 2023;25:e43727.
2. Lohit K, Kulkarni C, Galgali RB. Factors influencing adherence to anti-craving medications and drinking outcomes in patients with alcohol dependence: A hospital-based study. J Pharmacol Pharmacother. 2016;7(2):72-79.
3. Mladenovic I, Perunicic-Mladenovic I, DimitrijeviÄ I. Clinical and background risk factors affecting dropouts from alcohol use disorder treatment: A 25-year retrospective study. Int J Ment Health Addict. 2023:1-3.
4. Welford P, Gunillasdotter V, Andreasson S, Herring MP, Vancampfort D, Hallgren M. Sticking with it? Factors associated with exercise adherence in people with alcohol use disorder. Addict Behav. 2023;144:107730.
5. Henkel D. Unemployment and substance use: A review of the literature (1990-2010). Curr Drug Abuse Rev. 2011;4(1):4-27.
6. Stephan RA, Alhassoon OM, Allen KE, Wollman SC, Hall M, Thomas WJ, et al. Meta-analyses of clinical neuropsychological tests of executive dysfunction and impulsivity in alcohol use disorder. Am J Drug Alcohol Abuse. 2017;43(1):24-43.
7. Maharjan S, Amjad Z, Abaza A, Vasavada AM, Sadhu A, Valencia C, et al. Executive dysfunction in patients with alcohol use disorder: A systematic review. Cureus. 2022;14(9).
8. Hajduk AM, Lemon SC, McManus DD, Lessard DM, Gurwitz JH, Spencer FA, et al. Cognitive impairment and self-care in heart failure. Clin Epidemiol. 2013:407-416.
9. Santos T, Lovell J, Shiell K, Johnson M, Ibrahim JE. The impact of cognitive impairment in dementia on selfâcare domains in diabetes: A systematic search and narrative review. Diabetes Metab Res Rev. 2018;34(6):e3013.
10. Tuokko H, Morris C, Ebert P. Mild cognitive impairment and everyday functioning in older adults. Neurocase. 2005;11(1):40-47.