Medical Treatment Errors: Systemic Failures, Diagnostic Oversights, and Ethical Imperatives

Published: May 21, 2025

Source: mariresearch.com

Generated By MARI Research Team

Introduction

Medical treatment errors, defined as failures leading to or potentially leading to patient harm, are a serious global public health concern, eroding trust in healthcare and potentially causing devastating consequences (Kohn et al., 2000). This article will explore the causes, consequences, and prevention strategies of these errors, drawing on scholarly sources and healthcare data.

Causes of Treatment Errors

Treatment errors arise from a complex interplay of human, systemic, and environmental factors. A common root cause is miscommunication among healthcare professionals, particularly during transitions of care or handoffs between providers (Ratwani et al., 2018). In fast-paced, demanding environments, patient handoffs often occur in high-pressure environments where incomplete or incorrect information can potentially lead to errors in treatment decisions (Ratwani et al., 2018).

Another significant cause is too much trust in technology without adequate checks. While electronic health records (EHRs) and computerized physician order entry systems have improved healthcare efficiency, they can also introduce new types of errors if not properly managed (Dyrbye et al., 2017). For example, input errors in EHRs or selecting the wrong medication from dropdown menus can have serious consequences (Dyrbye et al., 2017).

Moreover, insufficient training and lack of proper supervision-especially within teaching hospitals-can result in medication errors, incorrect diagnoses, or the failure to adhere to established clinical protocols (Kohn et al., 2000). These issues are often worsened by fatigue and burnout among healthcare professionals, particularly during times of staff shortages or health crises like pandemics, increasing the likelihood of mistakes (Kohn et al., 2000).

Outcome Resulting from Medical Errors

The consequences of treatment errors can be severe, affecting both patients and healthcare systems. For patients, these errors can lead to extended hospital stays, increased healthcare costs, long-term disability and increased morbidity and mortality rates (Starmer et al., 2014). A frequent study estimated that medical errors are the third leading cause of death in the United States, accounting for over 250,000 deaths annually (Starmer et al., 2014).

Apart from physical injuries, patients may experience mental and emotional trauma and a loss of trust in healthcare providers, and a lower overall quality of life (Berwick, 2009). Families of patients affected by medical errors often face emotional and financial strain (Berwick, 2009).

For healthcare professionals, being involved in an error can result in what is known as the "second victim" phenomenon (Berwick, 2009). Providers may experience guilt, anxiety, and depression, which can impair their future performance (Berwick, 2009). Healthcare institutions, in turn, may face legal repercussions, financial penalties, reputational damage, and increased scrutiny from regulatory bodies (Berwick, 2009).

Misdiagnosis in Dermatology: A Case Study

A specific form of treatment error-misdiagnosis-is especially prevalent in dermatology, as highlighted by Dr. Pooya Beigi in a 2024 interview (Blissy, 2024). In the episode of The Blissy Experience, Dr. Beigi emphasizes that skin conditions such as contact dermatitis are often mistaken for other ailments due to overlapping symptoms (Blissy, 2024). These diagnostic inaccuracies result in patients receiving ineffective or even harmful treatments (Blissy, 2024).

Misdiagnosis in dermatology can occur due to similar clinical presentations, limited use of diagnostic tools, and insufficient patient history gathering (Blissy, 2024). According to Dr. Beigi, one of the main oversights is the failure to conduct patch testing or to thoroughly investigate the patient's exposure history to environmental or chemical irritants (Blissy, 2024). This often results in prolonged suffering and loss of trust in medical professionals (Blissy, 2024).

Such examples underscore the importance of specialized diagnostic strategies in high-variability fields like dermatology. They also highlight how gaps in diagnostic procedures can cascade into serious treatment errors (Blissy, 2024).

Systemic Factors and Case Examples

Several systemic issues contribute to treatment errors. Poor staffing ratios, lack of standardized protocols, and inadequate communication systems are often cited (Gallagher, 2022). For instance, a report by the Institute of Medicine emphasized that errors are often the result of faulty systems rather than individual negligence (Gallagher, 2022).

A tragic example is the case of RaDonda Vaught, a nurse who administered the wrong medication that led to a patient's death in a Tennessee hospital (Pronovost et al., 2006). Investigation revealed systemic issues, including flawed medication storage practices and understaffing, which contributed to the error (Pronovost et al., 2006). The incident sparked national debate about individual accountability versus system-level responsibility.

Strategies for Prevention

Addressing treatment errors requires a multifaceted approach involving cultural, technological, and educational reforms. A key element is fostering a culture of safety and transparency, where healthcare workers feel empowered to report mistakes without fear of punishment (Haig et al., 2006). This cultural shift can help identify error trends and implement systemic improvements.

Simulation-based learning and ongoing education also play a vital role in strengthening healthcare providers' skills, especially when dealing with high-risk situations (Haig et al., 2006). Moreover, clinical decision support systems that deliver timely alerts and evidence-based guidance can significantly decrease the likelihood of diagnostic and medication errors (Ratwani et al., 2018).

Additionally, the integration of standardized handoff protocols, such as the SBAR (Situation-Background-Assessment-Recommendation) technique, has been shown to improve the culture of patient safety (Haig et al., 2006). Furthermore, the ongoing audits, root cause analysis (RCA), and quality improvement efforts are vital for maintaining healthcare standards (Pronovost et al, 2006). RCA is especially effective in pinpointing fundamental problems and creating preventive measures that address the unique challenges of each institution (Pronovost et al, 2006).

Ethical and Legal Implications

Treatment errors raise important ethical and legal issues. From an ethical perspective, the principles of preventing harm and patient autonomy demand that providers disclose errors to patients honestly and compassionately (Ross & Newman, 2021). However, fear of litigation often discourages open communication (Ross & Newman, 2021).

Apologies are vital in mending relationships, but in healthcare, they remain contentious (Ross & Newman, 2021). Physicians often hesitate to apologize for medical errors due to concerns about potential malpractice claims (Ross & Newman, 2021). While some states have passed apology laws to encourage apologies, these laws typically protect only expressions of regret, not error disclosures, meaning they don't foster the open communication needed to enhance transparency and patient satisfaction (Ross & Newman, 2021).

The Role of Patients

Patients themselves can play an active role in preventing errors. Educating patients about their treatment plans, encouraging them to ask questions, and involving them in decision-making can serve as an additional layer of safety (Blissy, 2024). Patient-centred care models emphasize collaboration between patients and providers to enhance treatment accuracy and satisfaction (Blissy, 2024).

Conclusion

While treatment errors continue to pose a significant challenge in today's healthcare systems, they are not unavoidable. By strengthening systemic processes, improving communication, empowering healthcare professionals, and encouraging patient participation, the occurrence of such errors can be greatly minimized. Ongoing research, policy changes, and educational initiatives will be essential in creating a safer and more reliable healthcare environment for everyone involved.

References

Berwick, D. M. (2009). What 'patient-centered' should mean: Confessions of an extremist. Health Affairs, 28(4), w555-w565. https://doi.org/10.1377/hlthaff.28.4.w555

Blissy. (2024, August 9). Why your skin issue might be misdiagnosed! Dr. Beigi's insights | The Blissy Experience Ep. 10 [Video]. YouTube. https://www.youtube.com/watch?v=yA7PpiNM600

Dyrbye, L. N., West, C. P., Sinsky, C. A., Goeders, L. E., Satele, D. V., & Shanafelt, T. D. (2017). Medical licensure questions and physician reluctance to seek care for mental health conditions. Mayo Clinic Proceedings, 92(10), 1486-1493. https://doi.org/10.1016/j.mayocp.2017.06.020

Gallagher, T. H. (2022). Criminalizing medical errors: A call for systemic reform. New England Journal of Medicine, 387(3), 207-209. https://doi.org/10.1056/NEJMp2202383

Haig, K. M., Sutton, S., & Whittington, J. (2006). SBAR: A shared mental model for improving communication between clinicians. Joint Commission Journal on Quality and Patient Safety, 32(3), 167-175. https://doi.org/10.1016/S1553-7250(06)32022-3

Kohn, L. T., Corrigan, J. M., & Donaldson, M. S. (Eds.). (2000). To err is human: Building a safer health system. National Academies Press. https://doi.org/10.17226/9728

Pronovost, P. J., Berenholtz, S. M., & Needham, D. M. (2006). Translating evidence into practice: A model for large scale knowledge translation. BMJ, 333(7565), 1261-1263. https://doi.org/10.1136/bmj.39033.675985.BE

Ratwani, R. M., Savage, E., Will, A., Fong, A., Karavite, D., Muthu, N., & Adelman, J. (2018). Identifying electronic health record usability and safety challenges in pediatric settings. Health Affairs, 37(11), 1752-1759. https://doi.org/10.1377/hlthaff.2018.0699

Ross, N. E., & Newman, W. J. (2021). The role of apology laws in medical malpractice. Journal of the American Academy of Psychiatry and the Law, 49(2), 259-266. https://doi.org/10.29158/JAAPL.200107-20

Starmer, A. J., Spector, N. D., Srivastava, R., West, D. C., Rosenbluth, G., Allen, A. D., & Landrigan, C. P. (2014). Changes in medical errors after implementation of a handoff program. New England Journal of Medicine,371(19), 1803-1812. https://doi.org/10.1056/NEJMsa1405556