

Question: When considering errors in medication reconciliation among the adult population, does patient admission have a higher occurrence of errors when compared to discharge?

Summary: Medication reconciliation is an important component of patient safety and is especially crucial during transition periods. Patient care transfers, either between healthcare professionals or facilities, has shown to be a high-risk area of medication reconciliation errors. Since the patient is passed between caregivers and facilities, one of the most pressing challenges when trying to eliminate medication reconciliation errors is the lack of ownership of the medication reconciliation process. A BMJ Quality Improvement Report found that patient admission and discharge are often treated as separate processes, instead of a series of events in the continuity of care. This makes it difficult to place responsibility and accountability for medication reconciliation errors (Kreckman et al., 2018). Another study found that physician experience, number of pre-admission prescribed medications, and previous surgeries are some other identifiable risk factors that lead to medication reconciliation errors (Rodriguez Vargas et al., 2016). When researching how often medication reconciliation errors occur, a study performed at Montpellier Hospital in France found that 29.4% of their patient sample had at least one unintended medication discrepancy throughout care. Looking at the population in which the medication discrepancies occurred, the study found that 36% of the time the medication errors were serious (Breuker et al., 2017).

Conclusion: Despite an increase in guidelines and the streamline of technology, medication errors continue to be the most common type of medical error and can result in lethal consequences (2018). Comparing the errors at admission and discharge is crucial in reducing medication reconciliation and providing safe and effective care for our patients. An observational 2-year study performed at a regional hospital found that 64.5% of patients had a medication reconciliation error during admission, whereas, 32.4% of patients had a medication reconciliation error during discharge (Belda-Rustarazo et al., 2015). This means that there were double the amount of errors upon admission when compared to discharge. In order to reduce medication reconciliation errors and to appoint ownership and accountability, a hospital in Illinois created a Transition of Care Team that begins medication reconciliation at admission and continuously reviews the list until after discharge. The implementation of the Transition of Care Team showed great success by reducing admission errors from 33.9% to 18.4% and reducing discharge errors from 22.9% to 5.0% (2018).

Works Cited:

Primary Article:

Kreckman, J., Wasey, W., Wise, S., Stevens, T., Millburg, L., & Jaeger, C. (2018). Improving medication reconciliation at hospital admission, discharge and ambulatory care through a

transition of care team. *BMJ open quality*, 7(2), e000281. <https://doi.org/10.1136/bmjopen-2017-000281>

Secondary Article:

Belda-Rustarazo, S., Cantero-Hinojosa, J., Salmeron-García, A., González-García, L., Cabeza-Barrera, J., & Galvez, J. (2015). Medication reconciliation at admission and discharge: an analysis of prevalence and associated risk factors. *International journal of clinical practice*, 69(11), 1268–1274. <https://doi.org/10.1111/ijcp.12701>

Tertiary Article:

Breuker, C., Macioce, V., Mura, T., Audurier, Y., Boegner, C., Jalabert, A., Villiet, M., Castet-Nicolas, A., Avignon, A., & Sultan, A. (2017). Medication errors at hospital admission and discharge in Type 1 and 2 diabetes. *Diabetic medicine : a journal of the British Diabetic Association*, 34(12), 1742–1746. <https://doi.org/10.1111/dme.13531>

Quaternary Article:

Rodríguez Vargas, B., Delgado Silveira, E., Iglesias Peinado, I., & Bermejo Vicedo, T. (2016). Prevalence and risk factors for medication reconciliation errors during hospital admission in elderly patients. *International journal of clinical pharmacy*, 38(5), 1164–1171. <https://doi.org/10.1007/s11096-016-0348-8>