A Fatal Medication Error Involving Neuromuscular Blocking Agent and Insights From Wrong Drug Events in Pennsylvania

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The Patient Safety Authority (PSA) recently received a report describing a fatal medication error that highlights persistent risks involving wrong drug events. In this event, a patient who was prescribed a medication typically used to treat high blood calcium levels inadvertently received a fatal dose of a neuromuscular blocking agent (NMB) instead.

Investigation into this event revealed a series of system vulnerabilities that contributed to it. The initial error occurred when the wrong medication, which was stocked next to the intended medication, was selected from the refrigerated dispensing area in the pharmacy. A wrong drug alert was generated during the dispensing process but was overridden. Subsequently, the pharmacist performing the final verification missed the error.

To prevent such an error, facilities are encouraged to reevaluate their current processes for handling NMBs and implement proactive actions such as a force stop "wrong medication" alert in the pharmacy and the sequestration of all paralytic agents in appropriately labeled bins.

This event aligns with findings from a recently published manuscript on wrong drug events, "Wrong Drug Events Across Pennsylvania Healthcare Facilities: A Systematic Analysis of Medication Pairs, Class Patterns, and Clinical Safety Implications," which identified NMBs as among those implicated in wrong drug events reported to the Pennsylvania Patient Safety Reporting System (PA-PSRS).

For full details and study findings, we recommend facilities and providers review that article in PSA's journal *Patient Safety* at doi.org/10.33940/001c.134046.

About the Author

Myungsun (Sunny) Ro (mro@pa.gov) is a research scientist on the Data Science & Research team at the Patient Safety Authority (PSA). Her responsibilities include analyzing and synthesizing data from various sources to identify opportunities to improve patient safety, as well as writing scientific articles for publication in PSA's peer-reviewed journal, *Patient Safety*.