

## ISMP Targeted Medication Best Practice 2024: Tranexamic Acid Safety Using Vigilant Software Situation:

Tranexamic acid administration poses a significant risk of wrong-route errors, particularly when administered intrathecally. Accidental intraspinal injection of tranexamic acid can lead to severe neurotoxic effects, with a mortality rate of approximately 50% and potential long-term neurological damage.

### Background:

Tranexamic acid is an antifibrinolytic used perioperatively or off-label to control bleeding in various hemorrhagic conditions, including postpartum hemorrhage. Safety alerts from ISMP (Institute for Safe Medication Practices) highlight the dangers associated with wrong-route administration. Despite efforts to mitigate risks, incidents of accidental intraspinal injection have occurred due to container mix-ups, including cases involving local anesthetics with similar packaging.

### Assessment:

In response to these safety concerns, best practices have been developed to enhance medication safety during tranexamic acid administration. These practices focus on utilizing barcode-assisted safety checks, utilizing premixed IV bags, proper storage procedures, labeling vials, and conducting comprehensive reviews to identify and mitigate mix-up risks.

### Recommendation:

Implement the following best practices to safeguard against wrong-route errors with tranexamic acid:

- *Utilize point-of-care barcode-assisted medication safety checks.*
- Consider using premixed IV bags to reduce the risk of mix-ups.
- Store tranexamic acid separately from other medications, particularly local anesthetics, *and ensure clear labeling.*
- Store injectable medication vials in a manner that keeps their labels visible and prevents misidentification.
- Conduct a thorough review to identify and address any look-alike ampules or vials.
- *Consider labeling vial caps with a clear indication of the contents ("Contains Tranexamic Acid").*

Vigilant Software incorporates barcode scanning and can also be used to generate customized labels either in the pharmacy or at point of care e.g. OR to help mitigate tranexamic acid errors. Contact us here for a free trial.