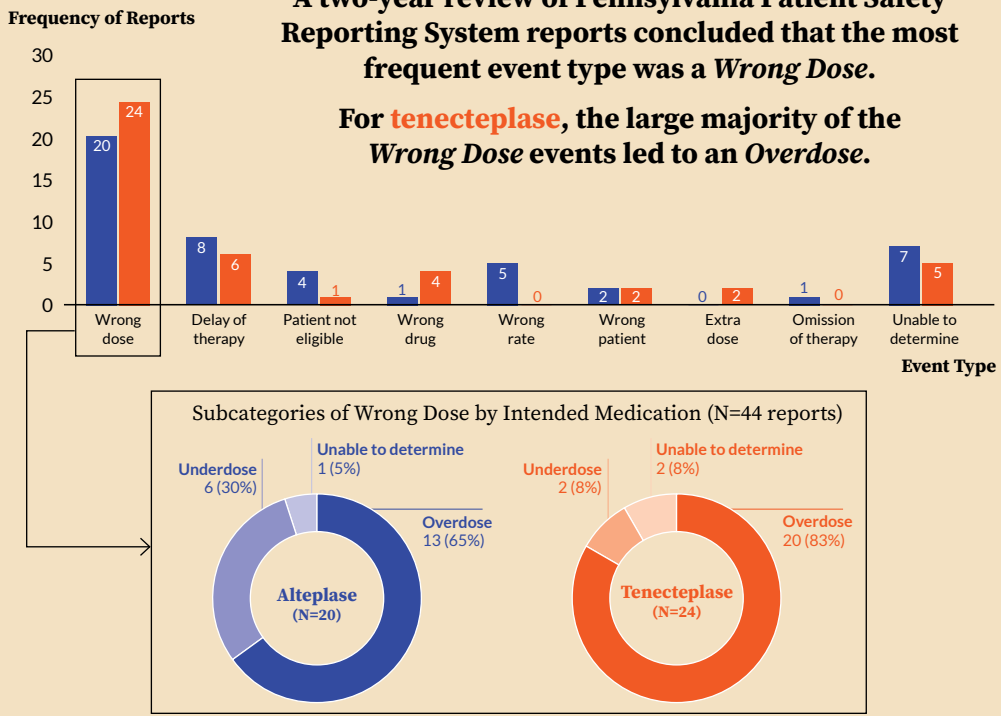
Alteplase- and Tenecteplase-Related Errors and Risk Mitigation Strategies in the Treatment of Acute Ischemic Stroke: A Study of Event Reports From 52 Hospitals



A two-year review of Pennsylvania Patient Safety Reporting System reports concluded that the most frequent event type was a *Wrong Dose*.

For tenecteplase, the large majority of the *Wrong Dose* events led to an *Overdose*.

Most Frequent Associated Factors for Each Medication

Alteplase

- Weight incorrect or not collected
- Programming error with infusion pump
- Drug label wrong or missing

Tenecteplase

- Knowledge and/or experience deficit
- Order not placed in electronic health record
- Dosing information unavailable or incorrect

Recommendation Highlights

- Require the use of the order set specific to each indication.
- Create a hard stop in the EHR for:
  - Missing documentation of the most recent weight.
  - Contraindications.
  - A dose exceeding 25 milligrams for the treatment of acute ischemic stroke with tenecteplase.
- Dedicate a separate medication kit in the automated dispensing cabinet for individual medication based on indication. Ensure that the kit contains appropriate supplies and dosing instructions.

Ro M, Taylor MA, Jones R. Alteplase- and Tenecteplase-Related Errors and Risk Mitigation Strategies in the Treatment of Acute Ischemic Stroke: A Study of Event Reports From 52 Hospitals. *Patient Safety*. 2024;6(1):117322. doi:10.33940/001c.117322

PATIENT SAFETY