

This study aims to compare the number of observed medication preparation and administration errors between the only commercially available ready-to-administer product (Simplist) and IV push traditional practice, including a cartridge-based syringe system (Carpject) and vials and syringes” Hertig et al (2018).

Abstract:

Objectives: Current literature estimates the error rate associated with the preparation and administration of all intravenous (IV) medications to be 9.4% to 97.7% worldwide. This study aims to compare the number of observed medication preparation and administration errors between the only commercially available ready-to-administer product (Simplist) and IV push traditional practice, including a cartridge-based syringe system (Carpject) and vials and syringes.

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Methods: A prospective, multisite, observational study was conducted in 3 health systems in various states within the United States between December 2015 and March 2016 to observe IV push medication preparation and administration. Researchers observed a ready-to-administer product and IV push traditional practice using a validated observational method and a modified data collection sheet. All observations were reconciled to the original medication order to determine if any errors occurred.

Results: Researchers collected 329 observations (ready to administer = 102; traditional practice = 227) and observed 260 errors (ready to administer = 25; traditional practice = 235). The overall observed error rate for ready-to-administer products was 2.5%, and the observed error rate for IV push traditional practice was 10.4%.

Conclusions: The ready-to-administer group demonstrated a statistically significant lower observed error rate, suggesting that use of this product is associated with fewer observed

preparation and administration errors in the clinical setting. Future studies should be completed to determine the potential for patient harm associated with these errors and improve clinical practice because it relates to the safe administration of IV push medications.

Full Text

Reference:

Hertig, J.B., Degnan, D.D., Scott, C.R., Lenz, J.R., Li, X. and Anderson, C.M. (2018) A Comparison of Error Rates Between Intravenous Push Methods: A Prospective, Multisite, Observational Study. *Journal of Patient Safety*. 14(1), p.60-65.

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