

Evaluation of the Integrated Smart Pump-EHR Technology in Eight Adult Acute and Intensive Care Units

NCT06695169

Status	RECRUITING
Sponsor	The University of Texas Health Science Center at San Antonio
Enrollment	659 participants

Key Eligibility Criteria

Inclusion (3)

- Research Aims 1 (adoption rate) and 2 (frequency and types of alerts and programming error). We will include all IV medications and fluids delivered via smart infusion pumps within the past 6 months. We anticipate the dataset to include more than 180,000 of medications and fluid administration events.
- Research Aim 3 (documentation errors). We will select 200 IV medications that were administered with solutions using chart audit. To be included, the selected IV medications should be diluted with at least 100 ml solution. The choice of the 100 ml cutoff point was based on it being the minimum volume for the majority of IV medication administrations.
- Research Aims 4, 5, 6, and 7 (usability of the technology, nurse perception, predictors of nurse perception, nurse experience with technology). Eligibility criteria will be confined to registered nurses with at least an associate degree in nursing.

Exclusion (4)

- Research Aims 1 and 2. Bolus medications will be excluded due to the distinct workflow associated with their administration.
- Research Aim 3. Medications with solution volumes lower than 100 ml will be excluded.
- Research Aims 4, 5, 6, and 7. Licensed vocational nurses (LVN) and licensed practical nurses (LPN) will be excluded due to their non-involvement in IV medication administration. Additionally, and for Research Aim # 7, the group of 48 nurses who will engage in the usability testing will not be part of the focus group interviews to ensure a broader participation among nurses.
- Research Aim 8: Stakeholders from the different hospital's departments and councils (e.g., nursing, biomedical engineering, pharmacy, risk and management, technology committees, etc.) who were not part of the implementation process of infusion pumps in 2018 and 2020 or are not involved in continuous quality initiatives related to infusion pump adoption and quality measures tracking will be excluded.

Locations (1 total)

University Health, San Antonio, Texas, United States