Optimization of Electronic Continuous Renal Replacement Therapy Documentation to Reduce Time Spent in the Electronic Health Record

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Background

- Accurate nursing documentation has been associated with improved nursing outcomes
- Up to 35% of nursing work time is spent documenting care provided
- Precision Continuous Renal Replacement Therapy (CRRT) calculations are required to ensure optimal fluid balance for each patient
- CRRT calculations and documentation are noted to be one of the most time-intensive activities nurses perform in Critical Care Units
- The primary barrier to efficient documentation includes limitations in software functionality

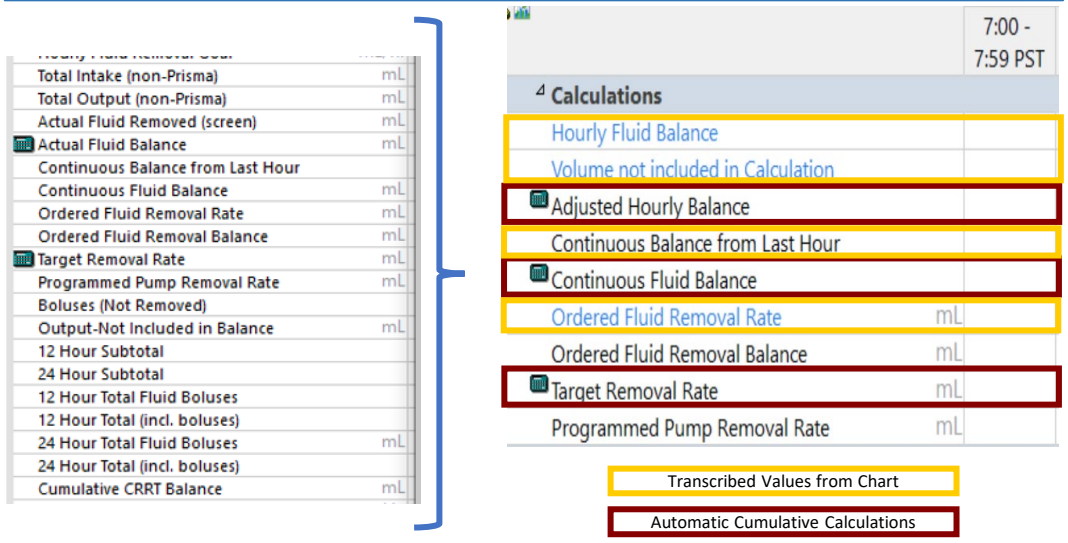
Purpose

To optimize Electronic Health Record (EHR) to decrease time spent performing calculations and completing documentation for CRRT

Methods

Nurses on the CRRT Quality Council

- Viewed electronic CRRT documentation solutions from other hospitals
- Drafted organization specific solutions as solutions from other hospitals did not meet program needs



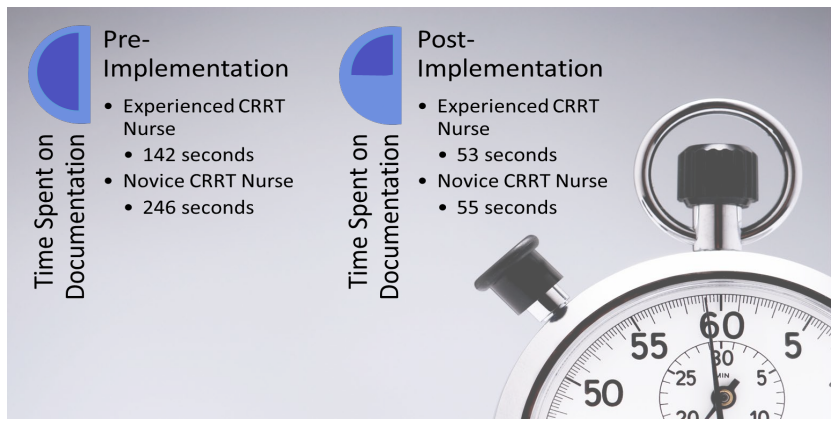
Description

In this organization, CRRT calculations are performed hourly, utilizing cumulative balances that are re-set every 24 hours and required nurses to perform calculations manually.

The approved solution required no manual calculation

- Added documentation fields to facilitate cumulative calculations
- Removed and the

Outcomes



Evaluation

- Time saved per day
  - Experienced CRRT nurses: 35.6 min
  - Less experienced CRRT nurses: 83.6 min
- Increased satisfaction and ease of use when ensuring accuracy of documentation.

Implications

- Organizations should explore documentation options and evaluate software limitations prior to optimizing the EHR
- Automatic CRRT calculations, limiting manual calculations by the nurse, promotes accurate determination of a patient's fluid balance and may improve patient outcomes