Slippery When Wet:

Cleaning Up the Fluid Administration Order Menu by Combining Principles of Usability Testing and Improvement Science

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INTRODUCTION

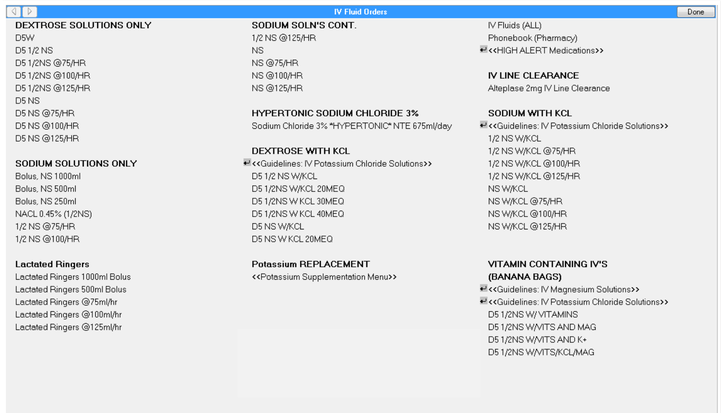
Usability Testing:

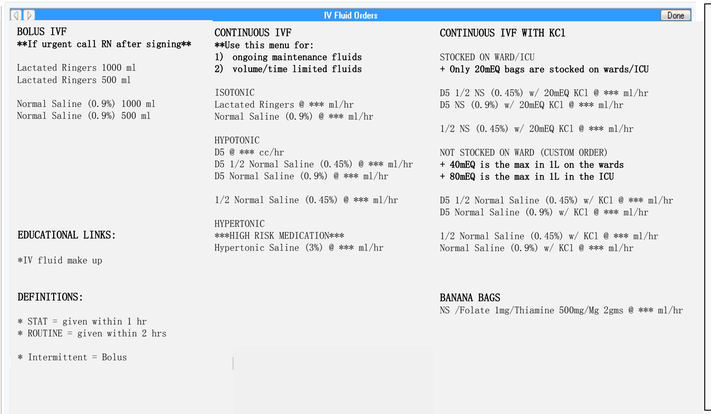
- A method of quality improvement that assesses the ability of a system to allow its users to carry out tasks safely, effectively, efficiently and enjoyably

Project Objectives:

- Describe the role of usability testing in improving an intravenous fluids (IVF) ordering menu
- Demonstrate that usability testing is a feasible and effective method for residents to engage in quality improvement efforts

PRIOR & REDESIGNED IVF ORDERING MENU





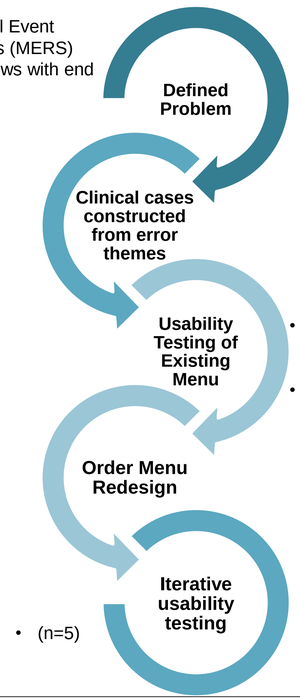
DISCUSSION

Usability Testing

- Identified sources of error in our current IVF ordering menu
- Guided subsequent redesign of a new menu with enhanced navigability and improved clinical efficacy
- Proved to be accessible and required limited resources
- Empowered residents to engage in quality improvement

METHODS

- Medical Event Reports (MERS)
- Interviews with end users



- Time, error count/type, user satisfaction
- (n=10)
- (n=5)

IDENTIFIED FLAWS

Error Types

- Slips
- Lapses
- Knowledge Gaps

Design Failure Modes

- Layout Challenges
- Terminology Confusion
- Extraneous Information

RESULTS

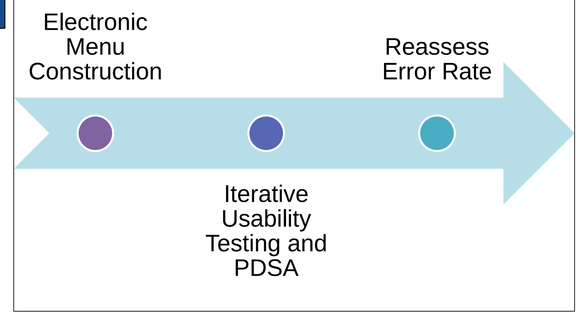
Order Entry Error Rates
40% → 4%

User Satisfaction
3.5 → 4.7
(5 point Likert Scale)

Total Time Investment
30 hours dedicated resident time

Resource Requirement
Minimal

NEXT STEPS



LITERATURE REVIEW

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