NIH Summer Research Program 2005

POSTER TITLE: Design Efficiencies and Satisfaction of Computerized Physician Order Entry: A Comparison of Two Order Entry Methods

MENTOR: Charlotte Seckman, MSN, RN, BC, Chief, Education, Evaluation, and Research

NIH AFFILIATION: Education, Evaluation, and Research, DCRI, NIHCC

NON-NIH AFFILIATION: University of Phoenix (PhD Program, Nursing Informatics)

ABSTRACT:
National safety groups have recommended the implementation of computerized provider order entry (CPOE) as an important strategy to improve the safety of healthcare for Americans. Meeting this goal has been hindered by the capabilities of outdated technology and/or the existing data entry formats currently available in the clinical setting. New technology that provides more efficient screen design, flexibility, and order management needs to be evaluated to assess improvements. This study used a two group comparison design to evaluate the impact of CPOE design options on efficiency and satisfaction. Quantitative and qualitative data were analyzed using T-tests and descriptive statistics. Study results support the effectiveness of design efficiencies and the

PURPOSE:
The purpose of this study was to evaluate the design efficiencies of the Clinical Research Information System (CRIS) by comparing standard order entry methods with order set capabilities for physician order entry in terms of time, assistance required and satisfaction.

CONCLUSIONS:
• The time study results indicate that order sets are an efficient way to enter medical orders.
• Overall system satisfaction scores were high with no significant difference between groups.
• A qualitative review of open-ended satisfaction question responses revealed the desire by the standard order entry group to have order sets available.
• The order set group indicated that the order sets were the most useful component of entering the medical orders during the post assessment.
• Although there was no significant difference in the number of help questions between the two groups, the highest number of requests for both groups were related to medication and IV order entry.
• All users reported high satisfaction with CPOE training. The requests for assistance in entering medication and IV orders indicate the need for additional medication ordering instruction during the prescriber order entry training.
• General satisfaction suggests that CPOE is valued and users may be expected to comply with system use.