

Managing Risk in a Legacy System in a Small Community Hospital

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Introduction/Background

Milford Regional Medical Center (MRMC) is a 145 bed community hospital that has used Meditech Magic EMR for over 25 years. Nursing documentation was introduced in 2007, EMAR in 2009 and CPOE was implemented in 2010. The adoption rate for CPOE has been high. In 2015, ninety two percent of the orders were placed in the EMR by the provider. An order entitled, “Notify Nurse”, was built in the initial implementation that allows for free text. Leading patient safety organizations have cautioned against the use of free text orders. The “Notify Nurse” order as free text order bypasses many safety features built within system.

The discovery of potential issues in the design and usability of the system at MRMC was realized through a proactive approach. In early 2014, the “Notify Nurse” usage was measured by the informatics department. The number, types, details of and use of this order were categorized and analyzed over a 3 month period. The results were presented to several key committees. The informatics department with support from leadership established a goal to reduce the use of and then safely eliminate the “Notify Nurse” order.

Methods

Monthly the Notify Nurse orders are reviewed. Categories and trends were analyzed. Orders categorized as medication type were the third highest type of Notify Nurse placed and were considered to have the highest risk. Priority was given to reduce the number of medication type orders. Orders categorized as communication type were the highest volume of Notify Nurse orders.

The PDSA methodology was used to implement iterative changes in cycles. Several cycles were done through 2014-2015 to reduce the numbers and types of Notify Nurse orders placed. Cycle activity included working with individual high utilizers, aliasing orders, leveraging clinical decision support, increasing awareness and creating new orders and workflows.

Results

Table 1: Overall reduction in Notify Nurse orders placed

January 2014-October 2015	January 2014	October 2015	Percent reduction
Overall number placed/month	661	348	47%
Medication type	87	16	81%
Existed in system	97	50	48%
Lab type	36	10	72%
Miscellaneous	422	272	35%

Discussion/Conclusion

The Notify Nurse order continues to be used in the system but with less frequency. A risk still exists for it to be used improperly. Overall the number of Notify Nurse orders have been reduced especially the medication type. Communication continues to be the leading category placed. Technology is being investigated to facilitate nurse: physician communication. Work continues to be done to further minimize the number of these orders placed and eventually remove the order without serious impact to clinician workflow and patient care.

References

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