The Health Care Decision-Making of Medication Administration throughout Alert Technology: A TRAJECTORY STUDY

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Abstracts
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Background: nursing information system combined with computerized physician order entry through the mobile station and used alert method with clinical decision support to take the medication administration is new technology about Patients medication safety. The purpose of study was to predict the change of time of Stat Order (TOSO) by decision technology of alert before and after implementation. The study design was longitudinal study, and nested design that level 1 was visit times of TOSO (including baseline and time 1 to time 6), and level 2 was subject of nurse. There were two group before (called paper group) and after (computer group has flash of alert to reminder nurse) implementation we used the dataset of nursing information system to collect the TOSO of nurse administration medication. There were enrolled 198 nurses and 2376 visits of TOSO in this study. The study period was from July 2008 to October 2008, and used STATA 12.0 for descriptive and multilevel Regression analysis. The results of mixed regression model was significantly reduced the Time of stat order (TOSO) on Computer group than paper group (95% C.I.: -99.05~-61.65, p<.001), in addition to we found that significantly reduced time of every visit (95% C.I.: -13.63~-9.89, p<.00). Also Intraclass correlation were .66~.67.

Conclusion: We recommended this new technology of alert must be integrated to nurse’s medication administration routine and improved medication administration on patient safety. Actually the health care decision-making will be high quality, and timely.

Keyword: Medication Administration Systems, Computerized Physician Order Entry System; Decision Marking, Alert’s Technology