

ALERTSTATS™: An Anonymous, Provider-Specific, Quality Metric Feedback System

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Background/Introduction: To improve a departments' overall quality of care each clinical provider must improve their individual care. For provider to modify their care to adhere to guidelines, they must have clear and agreed upon metrics and optimally an alerting system that warns them when they are approaching the range of concern. Finally, a user specific feedback system, which would allow providers to see their care relative to their peers, would complete the quality improvement cycle. Recently, a multifunction, icon-based alert display was developed at the University of Michigan (AlertWatch™), which receives data from the physiologic monitor, the AIMS, history and physical data, and the laboratories. To provide individual specific feedback on care a series of metrics, which are associated with alerts, are presented on a display. The following is a description of this system: AlertStats™.

Methods: Quality metrics were developed for the following parameters: glycemic control, blood pressure, transfusion management, postoperative pain, postoperative temperature, and weight not entered. Two levels of management/treatment were assessed for glucose, blood pressure, hematocrit and pain score. An exclusion criterion for each parameter was developed to minimize the effect of outlier patients or treatments. A weekly query was run on the database, and a display generated for each provider showing their performance relative to the whole.

Results: Figure 1 shows a single parameter (glucose >200 ml/dl, treated or not) using absolute number of occurrences. Figure 2. Shows the same parameter using percentage. Note the shift in the provider's location on the "bad" to "good" axis. Figure 3 shows the same information as figure 1, the absolute number of treatment against the opportunities to treat. Note the provider who had the same absolute number of untreated glucose, but missed treating all potential ones. Lastly figure 4 shows a single provider over time. These outputs are available for all the quality metrics listed.

Conclusion: This system has been recently initiated at the University of Michigan. The effect on outlier improvement in care has not assessed to date. Further studies will be required to determine if providing this individual feedback will improve each provider's performance in compliance with quality metrics and therefore improve the overall department's metrics and hopefully postoperative outcomes measures.

