
Guideline-Inclusive Electronic Ordering System Reduces Telemetry Overuse



By integrating the American Heart Association's (AHA's) guidelines into its electronic ordering system, the Christiana Care Health System, Newark, Del., was able to reduce its use of telemetry (monitoring to detect irregular heartbeats) by 70 percent.

According to the AHA recommendations, non-intensive care unit cardiac telemetry patients should be divided into three groups on the basis of three classes of clinical conditions: Class 1 includes patients who are at significant risk of an immediate life-threatening arrhythmia; Class II consists of patients for whom cardiac monitoring may be of benefit in some cases but not essential for all; Class III consists of patients at low risk or otherwise unlikely to benefit from cardiac monitoring. The healthcare organisation conducted the study from December 2012 to August 2013 by redesigning its telemetry orders as per the AHA guidelines.

The results of the study showed that the average number of weekly telemetry orders decreased from 1,032 to 593. The average duration of telemetry declined from 57.8 hours to 30.9 hours. In addition, the average daily number of patients monitored with telemetry declined from 357 to 109 (a reduction of approximately 70 percent). The organisation's average daily cost for non-ICU cardiac telemetry decreased from \$18,971 to \$5,772. These results were achieved without any adverse effects on patient safety.

The study highlights that it is indeed possible to avoid the overuse of telemetry, which results both in unnecessary costs as well as bed flow problems. It is important to understand that every patient that is hospitalised does not require cardiac monitoring. In addition, telemetry is labour intensive. These are some of the reasons why it is important to use it only in patients that are most likely to benefit from it.

According to Nader Najafi, MD, of the University of California, San Francisco, "It is remarkable to achieve such a substantial reduction in the use of this resource without significantly increased adverse outcomes. This result suggests two conclusions. First, telemetry is overused and the AHA guidelines, imperfect as they may be, can safely rein in unnecessary monitoring. Second, since the guidelines exclude patients who do not have a primary cardiac condition, the intervention must have safely reduced or nearly eliminated monitoring for these patients. It is a reminder of the absence of known clinical benefit of using telemetry on medical and surgical services. To practice evidence-based care, we need a randomised trial of telemetry."

Source: JAMA

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Published on : Mon, 22 Sep 2014