
Cardiac Telemetry Overuse



According to a single-centre study conducted by Andrew Doorey, MD, Christiana Care Health System in Newark, Del and colleagues, reducing the use of cardiac telemetry outside the ICU is unlikely to miss treatment-changing or life-threatening arrhythmias (LTA). Details are published in *JAMA Internal Medicine*.

The study was conducted based on the premise that life-threatening arrhythmias are often used as the rationale for using telemetry and that the fear of missing them contributes to its overuse. The researchers hypothesised that alarms representing LTAs are uncommon and very few of them affect patient management.

In light of the 2004 American Heart Association scientific statement that called out for cutting down the use of cardiac telemetry outside the ICU, the centre instituted a revision of non-intensive care unit telemetry. The study evaluated 2 periods - before (Oct 2012 to November 2012) and after (May 2013 to June 2013) revision. Alarms were tabulated and those designated as emergency alarms were evaluated. Emergency alarms were divided into three classes: potential LTAs, clinically important alarms, and alarms of questionable importance.

Once the protocols were revised in March 2013, duration of telemetry declined from 2.58 versus 1.55 days. Telemetry initiation was reduced by 43 percent and no increase in mortality, cardiac arrest or activation of the response team was observed. Only one potentially life-threatening alarm occurred at the centre out of a total of 7200 alarms before or after revisions to the electronic ordering system protocol. 37.2 percent of the 78 emergency alarms were considered to be clinically important while 48.3 percent led to change in clinical management within an hour. Majority of the alarms were for rapid atrial tachyarrhythmia.

"Thus, reducing unnecessary telemetry use is not likely to miss life-threatening alarms because of the very low incidence of true life-threatening alarms in contemporary telemetry monitoring settings," they wrote. "This finding should be reassuring to those considering the recommendation of the Choosing Wisely campaign to limit nonintensive care unit telemetry."

In an accompanying editorial, Stephanie Chen, MD, and Sammy Zakaria, MD, MPH, of Johns Hopkins Bayview Medical Center in Baltimore consider the findings a teachable moment and reiterate that telemetry is designed to aid in the management of active cardiac conditions but it is currently being overused for stable arrhythmias and monitoring of noncardiac conditions. They highlight the need to understand the limitations of telemetry for nonguideline indications and suggest that it should not replace closer clinical monitoring outside the ICU.

Source: [JAMA](#)

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