Tipping the Top of Annoying Alarms on a Med-Surg Tele Unit

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Background:

Nurses on a 72-bed Med-Surg Tele (MST) unit recognized that excessive alarm exposure resulted in sensory overload and potential desensitization. Subsequently, response to alarms may have been delayed or missed altogether. Recognizing that patient deaths had been related to alarm fatigue was an important first step in developing strategies toward alarm management.

Purpose:

To identify the top alarms associated with telemetry monitoring and implement reduction strategies.

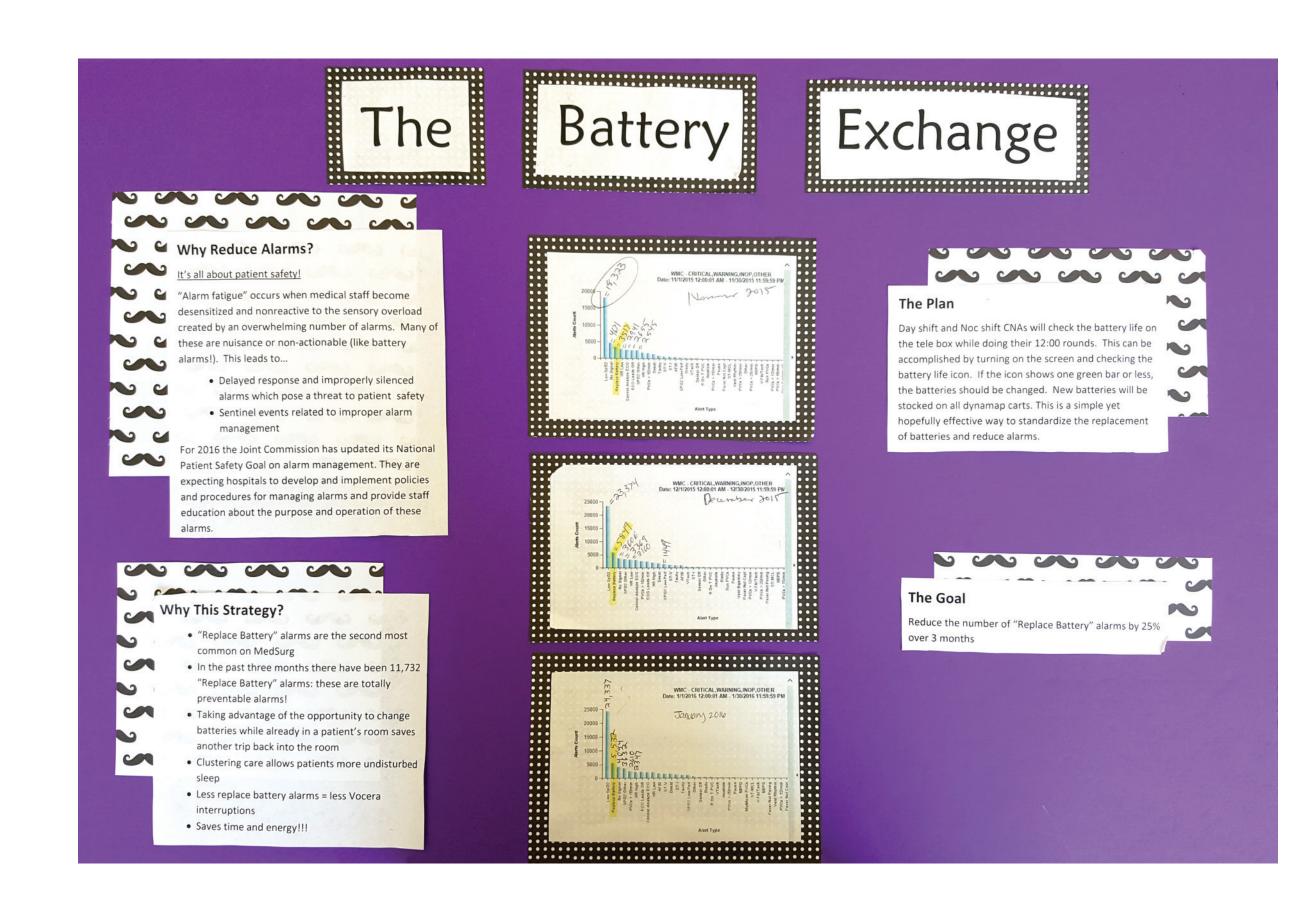
Methods:

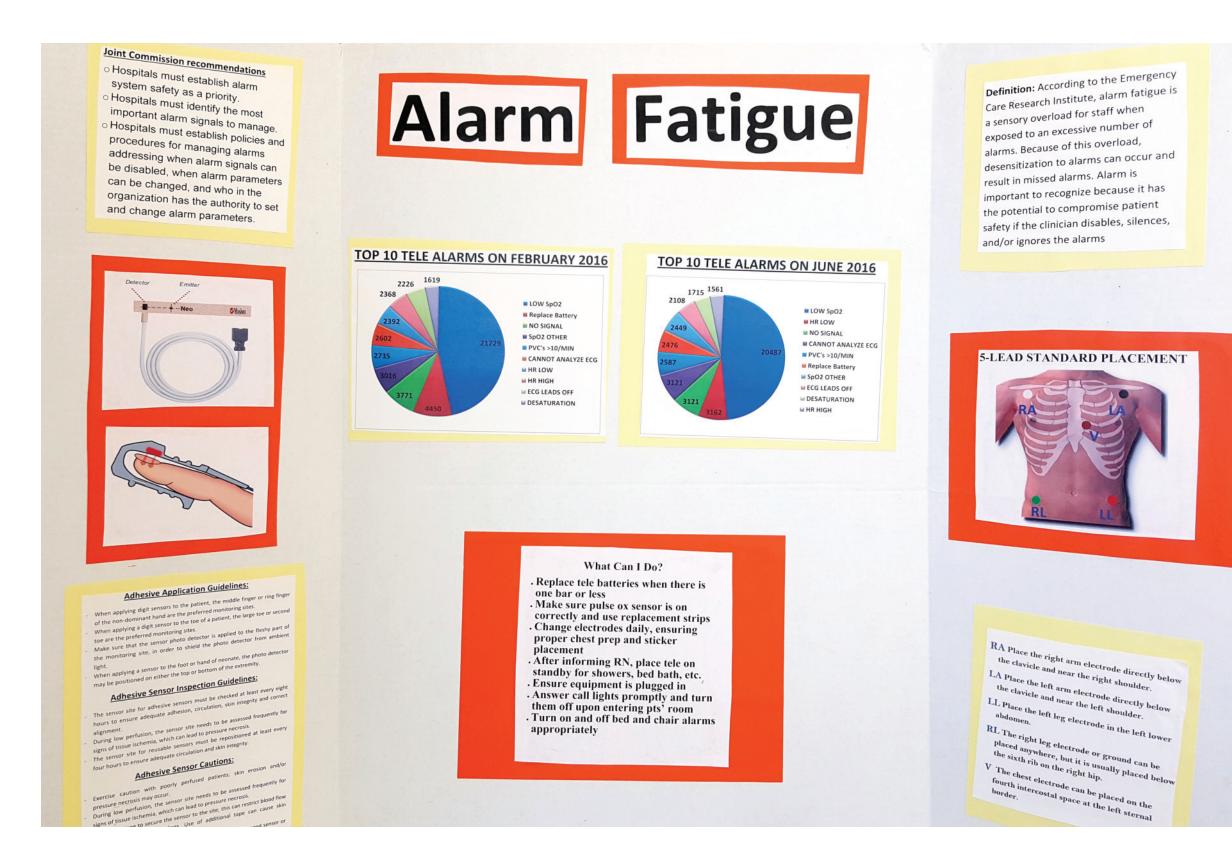
An interdisciplinary subgroup met to develop strategies to mitigate alarm fatigue. The first step was to review the data retrieved from the telemetry monitors. This data revealed that Low SpO2 and Battery Replacement were the top two alarms.

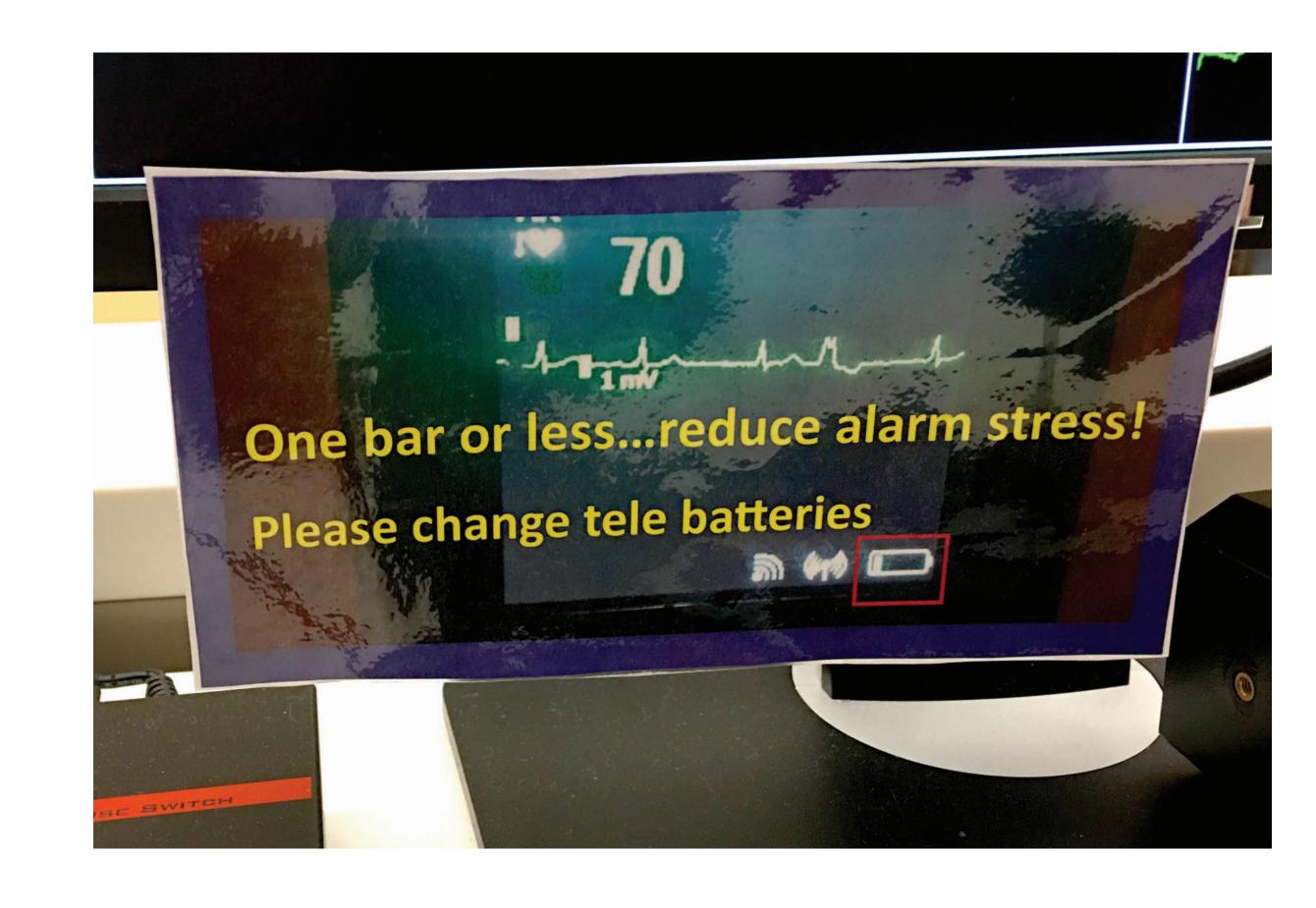
To address the Low SpO2 alarms, new oximetry probes were evaluated after recognizing that the current probes were not adhering effectively. The Respiratory Therapists recommended a wrap around probe that was more expensive but would potentially require fewer changes. The default low SpO2 alarm was changed from 90% to 88%. A trial began in April 2015 which included extensive staff education and training.

To address Battery Replacement alarms, the unit began pro-actively changing out batteries when the battery life was below 1 bar.

Education, Posters, Laminated Signs:







Components of Success:

- New Product was implemented with education in Newsletters, Staff Meetings & in the UBT.
- ► EBP suggested SpO2 alarms to be decreased from current 90% default setting to 88%.
- ► A UBT (Unit Based Team) Project was identified to pro-actively change out batteries when battery life was < 1 bar.

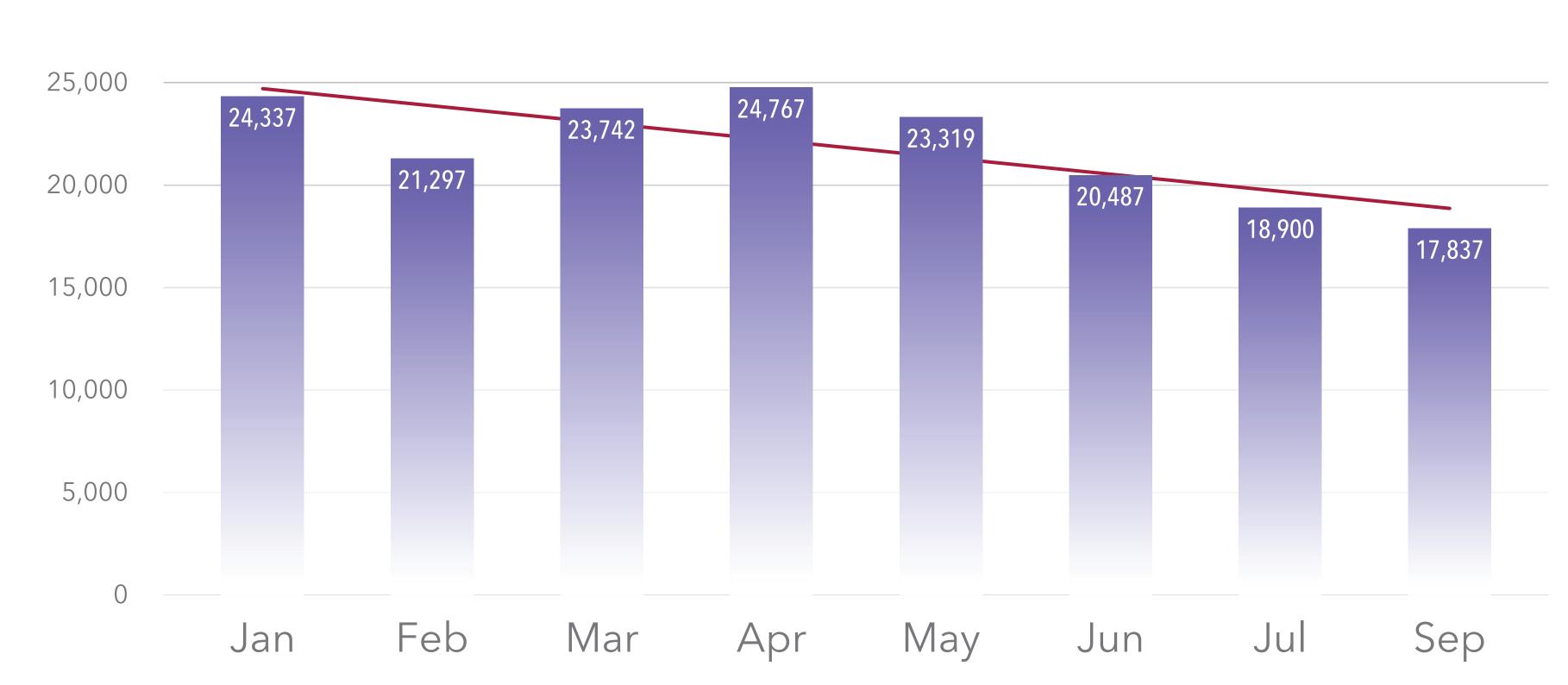


Conclusion:

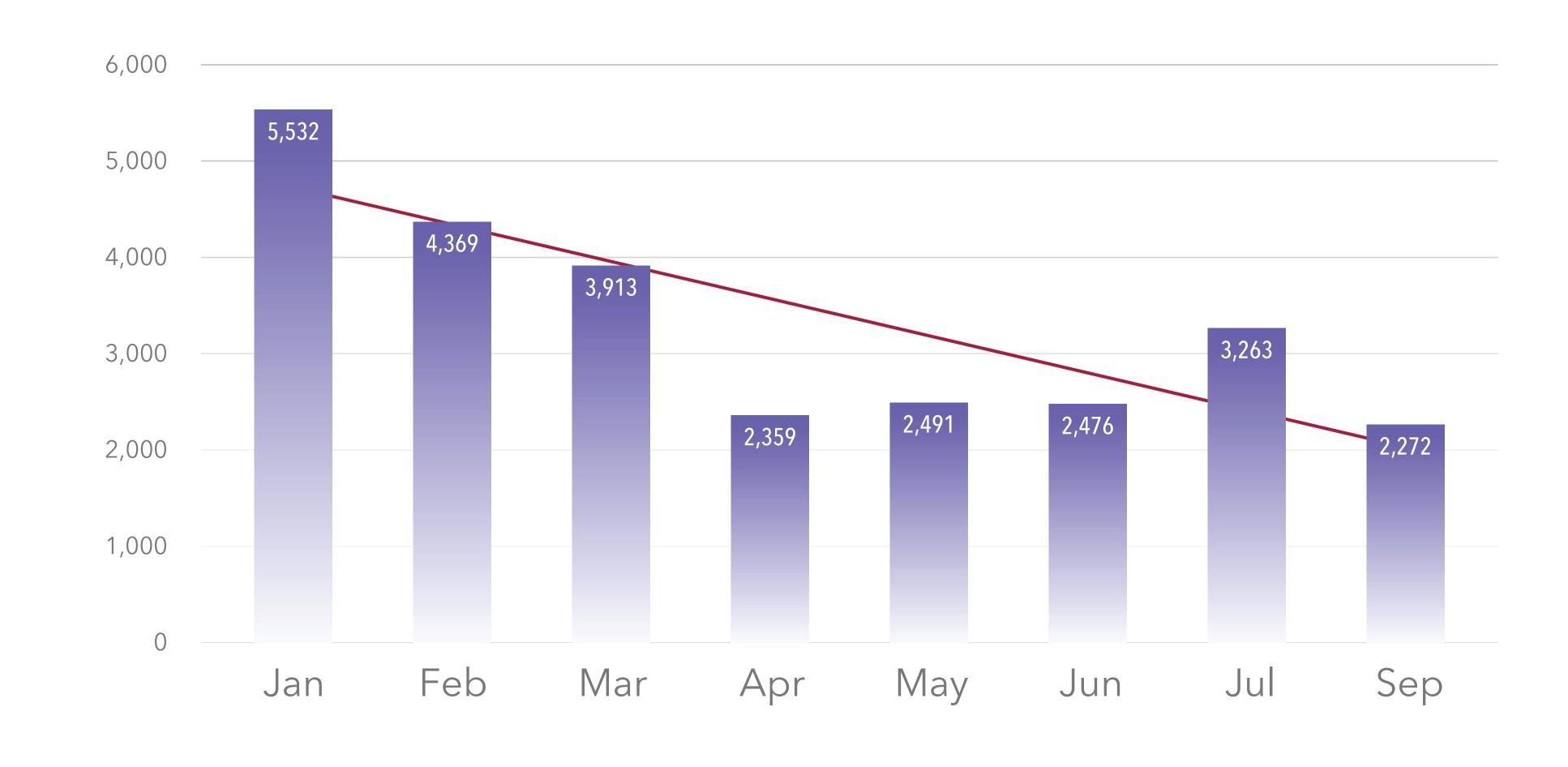
The top telemetry alarms were identified and several strategies implemented that resulted in a reduced number of alarms. Ongoing monitoring and further identification such as measuring alarm fatigue of the nursing staff will further enhance the understanding of alarm management.

Results:

Total Number of Low SpO2 Alarms by Month



Total Number of Tele-Battery Replacements by Month



The Low SpO2 alarms were reduced from 22,900 (baseline) to 17,837 (22%) and the Battery Replacement alarms were reduced from 6,140 (baseline) to 2,272 (63%) from March 2015 to September 2016. Current work: Sustaining the Apr-Jun gains.