### Article

**Smart Alarms: Multivariate Medical Alarm Integration for Post CABG Surgery Patients**

**Reference**

http://repository.upenn.edu/cgi/viewcontent.cgi?article=1527&context=cis_papers

### Brief Summary (~200 words)

This article describes a study conducted on post-CABG patients in an intensive care unit setting to develop smart alarms. Alarm algorithms were developed using “Fuzzy” logic to consider multiple vital signs to provide better and fewer alarms to the clinicians caring for the patients. In addition, the alarm would provide decision support as additional patient data such as age, weight, fitness and medical history is included. The alarms are built to differentiate urgency and to provide an output of possible complications the patient may be experiencing. Results of the study showed a 57% reduction in alarms during the 1,451 hours of actual vital sign data.

### Technologies Involved

Patient monitor – multi parameter

### Care Settings

Inpatient – Critical Care - Cardiac Surgery

### Relevance and Reviewers Option

Clarion Theme: Improve alarm system management
Use of multiple vital sign parameters to create single clinically actionable alarms is an important area to continue to explore