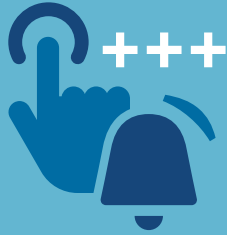


# Enhancing nurse alarm management and workflow in a Cardiac Telemetry Unit with Enterprise Notification

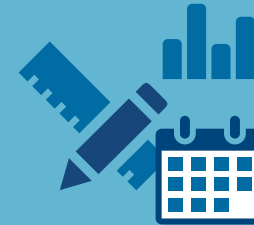


## Aims of alarm management:

Enhance patient safety and comfort through reducing alarm fatigue and improving action to important alarms<sup>1,2</sup>



Improve response time and care processes by efficient notification and escalation of alarms<sup>3,4</sup>



Maintain improvements over time by careful measurement and customization of changes<sup>5,6</sup>

## Continuous improvement through Alarm Management Clinical Services

### Intelligent data analytics



### People



Change management through awareness and feedback  
Staff enablement  
Education

### Processes



Understanding status quo  
Measuring and tracking changes  
Guidelines and policies  
Monitoring and escalation procedures

### Technology



On patients  
In patient rooms  
On the units  
On caregiver's smart devices  
Meaningful reporting

## Case study: Alarm management using Philips CareEvent

### A Novel ECG Ward Telemetry System with smartphone based alarm escalation<sup>7</sup>

A time-motion study was performed in Bonifatius Hospital Lingen, a secondary care hospital in Germany. The study involved 60 cardiology beds on 2 regular wards and a central monitoring system, allowing for visualization of the 26 patient monitoring units covering both wards. 12 of the patient monitoring units were telemetry units, whereas the others were fixed bedside monitoring systems. This conventional alarming system was augmented with **Philips CareEvent**, an enterprise clinical communication and collaboration system that utilized smart phones to monitor major arrhythmia alarms. Philips Clinical Transformation Services customized the alarm management solution and provided dedicated on-site training. The system was evaluated for 128 days with the following findings:

**100%**

of Arrhythmia alarms were confirmed to be forwarded through CareEvent with no alarm escalation failure.

**21%**

of average walking time per day could be saved by using CareEvent instead of walking to the central station.

**35%**

of alarms were escalated beyond the first smart phone during the day with **8 sec** as the median time to accept an alarm.



**26%**

of alarms were escalated beyond the first smart phone during the night with **9 sec** as the median time to accept an alarm.



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