**Position Statement 12**
*American Society of PeriAnesthesia Nurses*

# A Position Statement on Alarm Management

The American Society of PeriAnesthesia Nurses (ASPAN) has a responsibility to define principles of safe, quality nursing practice in the perianesthesia setting. Therefore, ASPAN actively participates in defining and supporting strategies and guidelines for making alarm safety a priority within the perianesthesia environment.

## Background

The incorporation of advanced medical technology into everyday practice has increased the number of preprogrammed devices readily available in healthcare settings. These devices have integrated both audio and visual alarm systems to alert the healthcare providers when attention is required. The expanding volume of technical devices in the clinical settings has contributed to the phenomena of alarm fatigue.

Alarm fatigue is defined by the Emergency Care Research Institute (ECRI) as "a condition that can lead to missed alarms as caregivers are overwhelmed by, distracted by, or desensitized to the numbers of alarms that activate."[1-4] Reports of serious incidents resulting in patient deaths have been attributed to lack of response by members of the healthcare team to alarms intended to alert caregivers of impending events.[1-10] ECRI has identified alarm fatigue as the number one "top hazard" since 2012.[1]

1. The World Health Organization (WHO) has determined that noise levels should not exceed 35 decibels during the day to promote optimal health. In most hospitals, the noise is usually in excess of this recommendation. Daytime noise levels in hospitals have been measured as high as 72-100 decibels and nighttime levels as high as 42-60 decibels.[4,8-11]
2. Awareness of issues related to alarm mismanagement has increased due to documented data and sentinel events.[8,9] Factors contributing to sentinel events include[2,3,5,8,9]:
    a. Deactivation of alarms
    b. Intentional decrease in alarm volumes
    c. Alarm programming issues
    d. Environmental noise
    e. Default settings that are too tight
    f. Increased number of nuisance or false alarms
    g. Inappropriate device placement
3. Studies indicate that the incidence of false or insignificant alarms (up to 99% of monitor alarms) result in desensitization. This contributes to the "cry wolf syndrome" and subsequent delays in attention to the cause of alarm activation.[3,4,6,7,11]

4. An interprofessional summit convened concerning medical device alarms in 2011. The purpose of the gathering was to discuss this critical patient safety issue.[3,12] Collaborating organizations included the following:
    a. Association for the Advancement of Medical Instrumentation (AAMI)
    b. US Food and Drug Administration (FDA)
    c. The Joint Commission (TJC)
    d. American College of Clinical Engineering (ACCE)
    e. Emergency Care Research Institute (ECRI)

This summit increased knowledge and awareness of the incidence and impact of alarm monitoring practices and resulted in recommended strategies. One such strategy included the naming of alarm fatigue as a 2013 Joint Commission National Patient Safety Goal.[5,12]

## Position

It is ASPAN's position that the perianesthesia registered nurse is competent in the management of medical devices/alarms. ASPAN recommends the following strategies:

1. Evaluation of the workplace environment (e.g., identification of the type of acoustical materials used, proximity of monitors to central stations).[5,10]
2. Facilities should determine measurements for the safe use of physiologic monitoring devices and alarm systems to help determine whether specific alarms are necessary or incidentally contribute to alarm noise and fatigue.[12]
3. Provide members of the healthcare team education that includes information concerning[2,3,5-7,11]:
    a. Specific functions of various devices
    b. Correct usage/placement of devices
    c. Default settings of clinical monitors
    d. Parameters for individualizing alarm settings
    e. Applicability of specific devices relative to patient outcomes
    f. Patient/family education regarding device use and expected outcomes
4. Individualization of specific physiologic alarm settings for specific patient scenarios.[3,11]
5. Facilities have the responsibility for providing perianesthesia registered nurses with training required to safely manage physiologic monitoring devices and alarm systems and for establishing continued professional development. Perianesthesia registered nurses will maintain knowledge and skills related to use of clinical monitoring devices and alarm systems.[2-4,9,13]
6. Facilities should establish interprofessional teams within the organization to evaluate, review, and revise organizational policies and procedures to promote safe patient care.[7,13]

## Expected Outcomes

ASPAN promotes and encourages seminars and continuing professional development pertaining to patient assessment and monitoring. Perianesthesia registered nurses will demonstrate competence in recognition of physiologic changes and appropriate, individualized interventions to achieve optimal outcomes.

Perianesthesia registered nurses will collaborate with interprofessional efforts to define and implement use of clinical alarm systems.

ASPAN, as the voice of perianesthesia registered nursing will share this position statement with regulatory agencies and other related professional organizations.

## Approval of Statement

This statement was recommended by a vote of the ASPAN Board of Directors on April 25, 2015, in San Antonio, Texas, and approved by a vote of the ASPAN Representative Assembly on April 26, 2015, in San Antonio, Texas.

This position statement was updated and revised at the October 2019 meeting of the Standards and Guidelines Strategic Work Team in Dallas, Texas.

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## ADDITIONAL READING


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