

# GUIDELINE FOR A SAFE ENVIRONMENT OF CARE, PART 1

The following Guideline for a Safe Environment of Care, Part 1 has been approved by the AORN Recommended Practices Advisory Board. It was presented as proposed recommendations for comments by members and others. The guideline is effective December 15, 2012. The recommendations in this guideline are intended to be achievable and represent what is believed to be an optimal level of practice. Policies and procedures will reflect variations in practice settings and/or clinical situations that determine the degree to which the guideline can be implemented. AORN recognizes the various settings in which perioperative nurses practice; therefore, this guideline is adaptable to various practice settings. These practice settings include traditional operating rooms (ORs), ambulatory surgery centers, physicians' offices, cardiac catheterization laboratories, endoscopy suites, radiology departments, and all other areas where operative and other invasive procedures may be performed.

## Purpose

This document provides guidance for providing a safe environment of care related to patients and perioperative personnel and the equipment used in the perioperative environment. They include information on

- musculoskeletal injury,
- fire safety,
- electrical equipment,
- clinical and alert alarms,
- blanket- and solution-warming cabinets,
- medical gas cylinders,
- waste anesthesia gases,
- latex,
- chemicals including methyl methacrylate bone cement, and
- hazardous waste.

The potential for injuries related to exposure to bloodborne pathogens, radiation, surgical smoke, and chemotherapeutic agents are outside the scope of this document. Patient injuries related to incorrect tubing connections and requirements for heating, ventilation, and air conditioning also are outside the scope of this document. The recommendations for these topics are addressed in other AORN guidelines.

## Evidence Review

A medical librarian conducted a systematic literature search of the databases MEDLINE®, CINAHL®, Scopus®, and Cochrane Database of Systematic Reviews for meta-analyses, randomized and non-randomized trials and studies, systematic and non-systematic reviews, and opinion documents and letters. Search terms included *operating room,*

*ambulatory surgery center, perioperative nursing, nursing, nurses, surgical procedures, anesthesia, electrosurgery, diathermy, ventilation, smoke, surgical smoke, security measures, violence, occupational accidents, occupational diseases, musculoskeletal diseases, lifting, transportation of patients, patient positioning, human engineering, ergonomics, latex hypersensitivity, security measures, violence, security risk, fire blanket, fire safety, fires, smoke plume, clinical alarms, anesthetics, gas scavengers, compressed gas, compressed medical gas, methyl methacrylate, occupational exposure, hazardous waste, hazardous substances, waste products, hazardous upon disposal, protective clothing, tubing misconnection, spontaneous abortion, miscarriage, and abnormality.*

The search was limited to articles published in English and between the years 2005 and 2011; the librarian also established continuing alerts on the environment of care topics and contacted a federal agency for guidance. The lead author and medical librarian also identified relevant guidelines from government agencies and standards-setting bodies and consulted equipment specifications. In addition, the lead author identified and requested other guidelines and professional literature as deemed appropriate.

Articles identified by the search were provided to the project team for evaluation. The team consisted of the lead author, three members of the Recommended Practices Advisory Board, one member of the Research Committee, and one doctorally prepared evidence appraiser. The lead author divided the search results into topics and assigned members of the team to review and critically appraise each article using the Johns Hopkins Evidence-Based Practice Model and the Research or Non-Research Evidence Appraisal Tools as appropriate. The literature was independently evaluated and appraised according to the strength and quality of the evidence. Each article was then assigned an appraisal score as agreed upon by consensus of the team. The appraisal score is noted in brackets after each reference, as applicable.

The collective evidence supporting each intervention within a specific recommendation was summarized and used to rate the strength of the evidence using the AORN Evidence Rating Model. Factors considered in review of the collective evidence were the quality of research, quantity of similar studies on a given topic, and consistency of results supporting a recommendation. The evidence rating is noted in brackets after each intervention.

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