



Sentinel Event Alert • Issue 17 - March 2001

## *Sentinel Event* **ALERT**

### **Lessons Learned: Fires in the Home Care Setting**

Since April 1997, 11 sentinel events have been received and reviewed by the Joint Commission related to home health care patients who were either injured or killed as a result of a fire in the home. These home care patients were receiving supplemental oxygen service and in each case, the patient was over the age of 65. Several risk factors for home care related fires have been identified through an intensive analysis of these sentinel events; these risk factors include 1) living alone, 2) lack of smoke detectors or presence of non-functional smoke detectors, 3) cognitive impairment, 4) an identified history of smoking while oxygen is running, and 5) flammable clothing. These home care sentinel events resulted in the death of seven patients and the loss of function or permanent disfigurement for four other patients. Cigarette smoking was determined to be a contributing factor in each of these cases.

### **Root Causes Identified**

In the 11 cases studied, the home care organizations have identified various root causes that are thought to have contributed to these sentinel events involving fires in the home. These root causes encompass patient care processes, the caregivers, the environment of care, and communication factors. With relation to patient care processes, more than one-third of the cases involved inconsistent identification of smokers and missed reassessment visits. In 18 percent of the cases, organizations determined they lacked a sufficient process for considering the termination of services to patients who persistently refuse to comply with prescribed precautions.

In assessing caregivers, nearly three-quarters of the cases identified that caregivers needed to increase their emphasis on home safety, while 45 percent of cases identified incomplete orientation processes for new staff. More than one-third of the cases found that caregiver training was not coordinated among the health care providers.

Assessments of the environment of care revealed that in 55 percent of the cases, there was no process in place for testing the smoke alarms, and in 36 percent of the cases no home safety assessment process was in place. In 18 percent of the cases, there was no identified plan or testing for evacuation in the event of a fire.

*"It is important to include safety steps such as ensuring that the oxygen tanks are stored properly away from sunlight and heat, and making sure signs are posted advising firefighters that oxygen is in use."*  
**- Burton Klein**

Finally, the home care organizations identified a number of communication factors including failure to notify the primary care physician when a patient was noncompliant (73 percent); weak communication between home care providers, for example, between home health nursing service and oxygen equipment provider (55 percent); and delayed reporting of hazardous conditions to the home care management team.

### **Risk Reduction Strategies**

A variety of risk reduction strategies have been identified by the home care organizations involved in these home sentinel events. These strategies are in three primary areas: people-focused actions, process redesign, and environment/equipment redesign. In the first area, 45 percent of the organizations recommended improved staff training and orientation, especially with regard to identifying smokers and managing their care. Other recommendations included appointing a fire safety specialist or trainer and involving the fire department in employee and patient education activities.

Regarding process redesign, 64 percent recommended procedures for notifying the physician when a patient is noncompliant and 55 percent recommended procedures to improve communication between health care providers. Other suggestions included providing patients with smoking cessation information and assistance and involving the home care organization's Ethics Committee in reaching a decision to terminate home care services to non-compliant patients.

Finally, 55 percent of organizations recommended procedures for obtaining, testing and locating smoke detectors in the home; while 36 percent recommended procedures for home safety assessments. The development of evacuation plans and fire drill procedures were also suggested.

### ***Experts Recommendations***

Burton Klein, P.E., president of Burton Klein Associates, a firm specializing in health care electrical and fire safety issues, and a former health care fire protection engineer with the National Fire Protection Association, advises that home care organizations develop a thorough home safety assessment process that includes a review of electrical and gas systems, and the functioning of medical equipment. Local fire departments should also be involved in the assessment as appropriate. "It is important to include safety steps such as ensuring that the oxygen tanks are stored properly away from sunlight and heat, and making sure signs are posted advising firefighters that oxygen is in use." He also recommends a thorough evaluation of each patient's ability to communicate in order to identify patients who may have difficulty understanding verbal or written instructions. The evaluation should also include an assessment of the patient's sight and their ability to use equipment as intended by the manufacturer.

Scott Bartow, M.S., R.R.T., F.A.A.R.C., who represents the American Association of Respiratory Care on the Joint Commission's Home Care Professional and Technical Advisory Committee and is the director for Performance Home Medical Equipment, Ft. Worth, TX, recommends increased emphasis on initial and ongoing education and training for patients, family and other health care providers. "It requires training and practice to become competent in recognizing and responding to potential hazards," Mr. Bartow says. "Ongoing training is critical as environments, personnel and situations are in a constant state of change."

*Published for Joint Commission accredited organizations and interested health care professionals, Sentinel Event Alert identifies the most frequently occurring sentinel events, describes their common underlying causes, and suggests steps to prevent occurrences in the future.*

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