A Growing Fire Hazard Concern in Communities: Home Oxygen Therapy and Continued Smoking Habits


This research paper is from a large study involving home care aides and personal care assistants. The methods included focus groups, interviews and a survey for examining a wide range of safety and health conditions associated with providing home care services. This paper describes qualitatively and quantitatively, homes with clients on oxygen therapy who continue to smoke. The study also identifies a community-based intervention to reduce smoking during ongoing oxygen therapy that was developed and piloted in Massachusetts.

Employers and other Stakeholders

What is the relevance of the research findings?

The results of the study are relevant to home healthcare work because:

- Oxygen therapy is commonly used in the home care environment
- Smoking during oxygen therapy presents the significant hazard of rapidly accelerating fires and explosive atmospheres
- Home care aides and other home-based providers are exposed to these hazards when they are in homes where smoking during oxygen therapy is occurring

Intervention Opportunities

Key points of intervention are:

- Support policies that discourage smoking such as smoke-free laws and taxes on tobacco
- Deliver employee training for recognition of fire hazards in a client home; include the hazard present during smoking and oxygen therapy
- Include recognition of the fire hazard presented by smoking and oxygen therapy during initial client evaluation
- Make sure clients’ homes have working smoke alarms that are tested regularly
- Educate the client regarding the hazard present during smoking and oxygen therapy
- Provide access to support for client smoking cessation
- Encourage increased community and emergency responder awareness of the hazard present during smoking and oxygen therapy in the home environment

Home Care Aides and their Advocates

This research can help home care aides and their advocates to understand the serious safety hazard presented when a client who is on oxygen therapy continues to smoke.

- Fire occurs when there is the combination of a fuel source (for example a piece of newspaper, an ignition source (for example a lit match) and oxygen. This is known as “the fire triangle”. If
aides work in a client’s home where there is ongoing smoking and oxygen therapy, both the aide and the client are at increased risk of being injured by a fire.