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To: Adult Family Homes
Community Based Residential Facilities
Facilities Serving People with Developmental Disabilities
Nursing Homes
Residential Care Apartment Complexes

AFH 02
CBRF 02
FDD 01
NH 04
RCAC 02

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Guidance for the Safe Use of Oxygen – Use of Hair Dryers

The purpose of this memorandum is to provide guidance regarding the safe use of oxygen in residential and health care facilities. Recent observations of residents using oxygen in facility beauty salons have prompted this memorandum. The Division of Quality Assurance (DQA) is asking facilities to evaluate the use of oxygen in their facility when residents are using hair dryers. Facilities may need to re-evaluate and consider changes to their policies and procedures to promote a safe environment.

Oxygen Therapy

The number of people using oxygen in residential and health care facilities to treat emphysema, chronic bronchitis and congestive heart disease has risen over the past several years. Oxygen therapy allows people to increase the quality of their life but it also puts the person at risk for injury. While smoking when oxygen is in use creates the highest risk for fire, injury or death, other sources of heat or electrical sparks, when in contact with oxygen, can also result in serious harm.

Electric Hair Dryers

Using electric hair dryers near oxygen use is potentially dangerous. Sparks can be caused by problems with the hair dryer, the cord or with a loose electrical connection. In addition, electric

dryers produce hot air which can be dangerous in an oxygen-enriched environment. The U.S. Consumer Product Safety Commission warns consumers not to operate an electric hair dryer where aerosol or spray products are being used, or where oxygen is being administered. Most manufacturers' product labels for electric hair dryers carry warnings to not use electric hair dryers where oxygen is in use. CMS Region V refers to the Compressed Gas Association publication CGA P-2.7 - 2000 edition, section 5.3, which addresses use of oxygen near a source of ignition. This section states that oxygen use should be at least five feet from hair dryers.

Quality of Life - Alternatives

Enhancing the self-esteem of residents goes a long way to reducing the risk of depression or even deteriorating health. Taking care of outward appearances enhances a person's mental and emotional well-being. There are options available that make it possible for residents who are on oxygen to safely use a facility's beauty salon.

The majority of residents in nursing homes and assisted living facilities do not rely on oxygen for life support, and therefore are not reliant on continual access to oxygen. For these residents the facility should verify the physician order and if they have any questions consult the resident's physician. Oxygen can be intermittently discontinued to minimize the fire hazard exposure to the resident. Note: Oxygen remains in the air and on a person's clothes, hair and body for a period of time after the oxygen is turned off. Manufacturers recommend a wait time of 15 – 20 minutes before using the hair dryer. Facilities should also instruct salon staff to keep hair dryer settings on low heat to minimize a potentially hazardous situation.

Another option facilities may want to consider is having residents or tenants who require continuous access to oxygen use a battery-operated hair dryer. The Ohio State University Medical Center advises that battery-operated hair dryers of less than 10 volts are safe, but recommends checking the appropriate conditions of use with the person's physician.

Maintenance

The manufacturer's recommended instructions for use and handling of oxygen should be consulted to ensure full compliance with all applicable requirements. The facility should have a system for routine maintenance of hair dryers to ensure that the machines, electrical cords, etc. are in good operating condition.

Resources

For additional information regarding safety considerations when using oxygen, please see:

- eHow Health What are the Dangers of Oxygen Use Around Hair Dryers?
http://www.ehow.com/about_6511764_dangers-use-around-hair-dryers_.html
- Ohio State University Medical Center Oxygen Safety at Home
<https://ckm.osu.edu/sitetool/sites/lungcenterpublic/documents/ox-sf-rg.pdf>

- ACCE Healthcare Technology Foundation, Fire Safety & Oxygen : A Patient Guide
http://thehtf.org/documents/HomeDevice_Oxygen.pdf
- The U.S. Consumer Product Safety Commission Cautions Hair Dryer Owners
<http://www.cpsc.gov/cpscpub/prerel/prhtml82/82010.html>

Please see the following memorandums previously issued by DQA and the Centers for Medicare and Medicaid Services (CMS) regarding the storage, handling and safe use of oxygen.

- Certified nursing homes, CMS S&C Memo 12-04-NH Alert: Smoking Safety
http://www.cms.gov/Surveycertificationgeninfo/downloads/SCLetter12_04.pdf
- DQA memo 04-15 Oxygen use in Assisted Living facilities
http://www.dhs.wisconsin.gov/rl_dsl/Publications/04-015.htm
- DQA memo 88-062 Use of liquid oxygen devices
http://www.dhs.wisconsin.gov/rl_DSL/Publications/pdfmemos/88062.pdf

Contact information of staff in DQA to answer questions

Questions from nursing homes and facilities serving people with developmental disabilities should be directed to the Regional Field Operations Director for the region in which your facility is located. Regional contact information is located at:

http://www.dhs.wisconsin.gov/rl_DSL/Contacts/reglmap.htm

Questions from adult family homes, community-based residential facilities and residential care apartment complexes should be directed to the Assisted Living Regional Director for the region in which your facility is located. Regional contact information is located at:

http://www.dhs.wisconsin.gov/rl_DSL/Contacts/ALSreglmap.htm

Applicable Administrative Codes

Adult Family Homes

DHS 88.04 (2) (f) The licensee may not permit the existence or continuation of a condition in the home which places the health, safety or welfare of a resident at substantial risk of harm.

DHS 88.10 Resident rights (3) (L) *Safe physical environment*. To a safe environment in which to live. The adult family home shall safeguard residents who cannot fully guard themselves from environmental hazards to which they are likely to be exposed, including conditions which would be hazardous to anyone and conditions which would be or are hazardous to a particular resident because of the resident's condition or handicap.

Community-Based Residential Facilities

DHS 83.32 (3) (n) *Safe environment*. Live in a safe environment. The CBRF shall safeguard residents from environmental hazards to which it is likely the residents will be exposed,

including both conditions that are hazardous to anyone and conditions that are hazardous to the resident because of the residents' conditions or disabilities.

DHS 83.40 Oxygen storage. Oxygen storage shall be in an area that is well ventilated and safe from environmental hazards, tampering, or the chance of accidental damage to the valve stem. If oxygen cylinders are in use, oxygen cylinders shall be secured in an upright position. If stored upright, cylinders must be secured. If stored horizontally, cylinders shall be on a level surface where they will remain stationary.

Residential Care Apartment Complexes

DHS 89.34 Rights of tenants (17) SAFE ENVIRONMENT. To a safe environment in which to live.

Nursing Homes

DHS 132.71 (7) OXYGEN. (a) No oil or grease shall be used on oxygen equipment.

(b) When placed at the resident's bedside, oxygen tanks shall be securely fastened to a tip-proof carrier or base.

(c) Oxygen regulators shall not be stored with solution left in the attached humidifier bottle.

(d) When in use at the resident's bedside, cannulas, hoses, and humidifier bottles shall be changed and sterilized at least every 5 days.

(e) Disposable inhalation equipment shall be presterilized and kept in contamination-proof containers until used, and shall be replaced at least every 5 days when in use.

(f) With other inhalation equipment such as intermittent positive pressure breathing equipment, the entire resident breathing circuit, including nebulizers and humidifiers, shall be changed daily.

DHS 132.72 Housekeeping services. (1) REQUIREMENT. Facilities shall develop and implement written policies that ensure a safe and sanitary environment for personnel and residents at all times.

DHS 132.82 Life safety code. (1) APPLICABILITY. Facilities shall meet the applicable provisions of the 2000 edition of the Life Safety Code.

The 2000 edition of the Life Safety Code has a mandatory reference to NFPA 99 Standard for Health Care Facilities. Smoking, open flames, electric heating elements, and other sources of ignition shall be prohibited within oxygen storage location per NFPA 99 section 8-3.1.11.2 (i).

Facilities Serving People with Developmental Disabilities

DHS 134.71 (5) OXYGEN. Facilities that have residents who require oxygen shall meet the following requirements:

(a) No oil or grease may be used on oxygen equipment;

(b) When placed at the resident's bedside, oxygen tanks shall be securely fastened to a tip-proof carrier or base;

(c) Oxygen regulators may not be stored with solution left in the attached humidifier bottles;

(d) When in use at the resident's bedside, cannulas, hoses, and humidifier bottles shall be changed and sterilized at least every 5 days;

- (e) Disposable inhalation equipment shall be presterilized and kept in contamination– proof containers until used, and shall be replaced at least every 5 days when in use;
- (f) With nondisposable inhalation equipment such as intermittent positive pressure breathing equipment, the entire resident breathing circuit, including nebulizers and humidifiers, shall be changed daily; and
- (g) Warning signs shall be posted when oxygen is in use.

DHS 134.72 Safety and sanitation. (1) GENERAL REQUIREMENT. Facilities shall develop and implement policies that provide for a safe and sanitary environment for residents and personnel at all times.

DHS 134.82 Life safety code. (1) APPLICABILITY. Facilities shall meet the applicable provisions of the 2000 edition of the life safety code. The 2000 edition of the Life Safety Code has a mandatory reference to NFPA 99 Standard for Health Care Facilities. Smoking, open flames, electric heating elements, and other sources of ignition shall be prohibited within oxygen storage location per NFPA 99 section 8-3.1.11.2 (i).