Are there OSHA guidelines for floor cleaner usage in a healthcare facility (dental office)? If so, what are they and can you recommend a particular composition of a complying product? Thank you.

In general, the 2003 CDC guidelines for infection control in dentistry makes the following differentiation regarding clinical contact surfaces and housekeeping surfaces:

Environmental Infection Control
In the dental operatory, environmental surfaces (i.e., a surface or equipment that does not contact patients directly) can become contaminated during patient care. Certain surfaces, especially ones touched frequently (e.g., light handles, unit switches, and drawer knobs) can serve as reservoirs of microbial contamination, although they have not been associated directly with transmission of infection to either DHCP or patients. Transfer of microorganisms from contaminated environmental surfaces to patients occurs primarily through DHCP hand contact (286,287). When these surfaces are touched, microbial agents can be transferred to instruments, other environmental surfaces, or to the nose, mouth, or eyes of workers or patients. Although hand hygiene is key to minimizing this transferal, barrier protection or cleaning and disinfecting of environmental surfaces also protects against health-care–associated infections.

Environmental surfaces can be divided into clinical contact surfaces and housekeeping surfaces (249). Because housekeeping surfaces (e.g., floors, walls, and sinks) have limited risk of disease transmission, they can be decontaminated with less rigorous methods than those used on dental patient-care items and clinical contact surfaces (244). Strategies for cleaning and disinfecting surfaces in patient-care areas should consider the 1) potential for direct patient contact; 2) degree and frequency of hand contact; and 3) potential contamination of the surface with body substances or environmental sources of microorganisms (e.g., soil, dust, or water). Cleaning is the necessary first step of any disinfection process.

Cleaning is a form of decontamination that renders the environmental surface safe by removing organic matter, salts, and visible soils, all of which interfere with microbial inactivation. The physical action of scrubbing with detergents and surfactants and rinsing with water removes substantial numbers of microorganisms. If a surface is not cleaned first, the success of the disinfection process can be compromised. Removal of all visible blood and inorganic and organic matter can be as critical as the germicidal activity of the disinfecting agent (249). When a surface cannot be cleaned adequately, it should be protected with barriers (2). [1]

The 2003 CDC guidelines further states the following regarding housekeeping surfaces:

Housekeeping Surfaces
Evidence does not support that housekeeping surfaces (e.g., floors, walls, and sinks) pose a risk for disease transmission in dental health-care settings. Actual, physical removal of microorganisms and soil by wiping or scrubbing is probably as critical, if not more so, than any antimicrobial effect provided by the agent used (244,290). The majority of housekeeping surfaces need to be cleaned only with a detergent and water or an EPA-registered hospital disinfectant/detergent, depending on the nature of the surface and the type and degree of contamination. Schedules and methods vary according to the area (e.g., dental operatory, laboratory, bathrooms, or reception rooms), surface, and amount and type of contamination.

Floors should be cleaned regularly, and spills should be cleaned up promptly. An EPA-registered hospital disinfectant/ detergent designed for general housekeeping purposes should be used in patient-care areas if uncertainty exists regarding the nature of the soil on the surface (e.g., blood or body fluid contamination versus routine dust or dirt). Unless contamination is reasonably anticipated or apparent, cleaning or disinfecting walls, window drapes, and other vertical surfaces is unnecessary. However, when housekeeping surfaces are visibly contaminated by blood or OPIM, prompt removal and surface disinfection is appropriate infection-control practice and required by OSHA (13).

Part of the cleaning strategy is to minimize contamination of cleaning solutions and cleaning tools (e.g., mop heads or cleaning cloths). Mops and cloths should be cleaned after use and allowed to dry before reuse, or single-use, disposable mop heads and cloths should be used to avoid spreading contamination. Cost, safety, product-surface compatibility, and acceptability by housekeepers can be key criteria for selecting a cleaning agent or an EPA-registered hospital disinfectant/detergent. PPE used during cleaning and housekeeping procedures followed should be appropriate to the task.

In the cleaning process, another reservoir for microorganisms can be dilute solutions of detergents or disinfectants, especially if prepared in dirty containers, stored for long periods of time, or prepared incorrectly (244). Manufacturers' instructions for preparation and use should be followed. Making fresh cleaning solution each day, discarding any remaining solution, and allowing the container to dry will minimize bacterial contamination. Preferred cleaning methods produce minimal mists and aerosols or dispersion of dust in patient care areas. [1]

Additionally, *Practical Infection Control In Dentistry* states:

Implicit in the definition of housekeeping environmental surfaces is the suggestion of a very small potential for cross-infection during treatment. The lack of evidence suggesting a risk to dental care providers or their patients represents the basis for recommendations in this area. Thus the 2003 CDC infection-control guidelines for dentistry recommend that most housekeeping environmental surfaces need to be cleaned with only soap and water or an EPA-registered detergent/low-level disinfectant. The nature and type of surface and extent of contamination are determining factors for the level of chemical exposure. [2]

Infection Control and Management of Hazardous Materials for the Dental Team states:

Housekeeping and Cleaning
Dusting of surfaces or sweeping of floors in patient care areas can distribute microorganism-laden dust particles to other surfaces unless performed with a wet cloth or wet mop. One might consider dust covers for operatory and sterilizing room surfaces over the weekend or during vacation periods. One should clean mops and cloths after use and allow them to dry before reuse, or use single-use, disposable mop heads or cloths. Mop water should contain a low-level disinfectant to keep microorganisms from building up in the water and being painted onto the floor. One should prepare the mop water fresh at least daily. The filters in air vents and furnaces require frequent changing to avoid dust buildup.[3]

OSHA states the following in the Bloodoborne Pathogens Standard:

9*10.1030(d)(4)*

Housekeeping --

1910.1030(d)(4)(i)

General. Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area. [4]

OSHA states the following in the compliance directive for the Bloodborne Pathogens Standard:

Housekeeping (d)(4). The term "worksite" in this paragraph refers not only to permanent fixed facilities such as hospitals, dental/medical offices, clinics, etc., but also covers temporary non-fixed workplaces. Examples of such facilities include but are not limited to ambulances, bloodmobiles, temporary blood collection centers, and any other non-fixed worksites which have a reasonable possibility of becoming contaminated with blood or OPIM. Paragraph (d)(4)(i). Cleaning schedules and methods will vary according to the factors outlined in this paragraph. While extraordinary attempts to disinfect or sterilize environmental surfaces such as walls or floors are rarely indicated, routine cleaning and removal of soil are required. The employer must determine and implement an appropriate written schedule of cleaning and decontamination based upon the location within the facility (e.g., surgical operatory versus patient room), type of surface to be cleaned (e.g., hard-surfaced flooring versus carpeting), type of soil present (e.g., gross contamination versus minor splattering), and tasks and procedures being performed (e.g., laboratory analyses versus routine patient care). The particular disinfectant used, as well as the frequency with which it is used, will depend upon the circumstances in which the housekeeping task occurs. [5]

In summary, both the CDC and OSHA recognize housekeeping practices in dental offices. The nature and type of floor surface and extent of contamination will determine the housekeeping procedure. The CDC states that *Floors should be cleaned regularly, and spills should be cleaned up promptly. An EPA-registered hospital disinfectant/ detergent designed for general housekeeping purposes should be used in patient-care areas if uncertainty exists regarding the nature of the soil on the surface (e.g., blood or body fluid contamination versus routine dust or dirt).* [1] Ask OSAP does not review, evaluate, certify, recommend or endorse specific products.

Resources

1) Kohn WG, Collins AS, Cleveland JL, Harte JA, Eklund KJ, Malvitz DM, Centers for Disease Control and Prevention (CDC). Guidelines for infection control in dental health-care settings—2003. MMWR Recomm Rep 2003;52(RR-17):1-61. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5217a1.htm
Accessed on February 29, 2016.

2) Molinari JA and Harte JA. Practical Infection Control In Dentistry – Third Edition. Wolters Kluwer / Lippincott / Williams & Wilkins. Pages 176-177.

3) Miller CH. Infection Control and Management of Hazardous Materials for the Dental Team, 5th edition. Elsevier/Mosby Publishers. Page 183.

4) US Department of Labor – Occupational Safety & Health Administration. 1910.1030 Bloodborne Pathogens. https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10051 Accessed on February 29, 2016.

5) US Department of Labor – Occupational Safety & Health Administration. CPL 02-02-069 Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=directives&p_id=2570
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