

Is Your Clinic Accident-Proof?

by Carleen Brice

According to Hub International Midwest Limited, which manages AAHA's Business Insurance Program, a work-related injury occurs in the United States every nine seconds. Roughly 33 people will injure themselves in the workplace during the five minutes or so it takes you to read this article.

Hub reports that the leading cause of workers' compensation injuries in veterinary hospitals is bites from cats and dogs. In fact, according to Hub, the most common cause of workplace accidents is *not* unsafe workplace conditions, which cause less than 15% of all workplace accidents. The larger problem? Poor work habits among employees, which cause more than 80% of workplace accidents.

This doesn't mean that your staff isn't at risk from falls and other injuries. Leslie D. Nordgren, PhD candidate, and others presented a paper at the 2007 American Public Health Association's annual meeting that reported that lifting animals or equipment was a leading source of injuries to veterinary technicians (9% of all injuries reported in their study of 1,427 certified veterinary technicians). These types of injuries lead to consequences that neither staff nor owners want: restricted work activity and lost time from work.

Good design practices can help make your hospital as safe as possible.

Start with slip-resistant flooring

"This is the single most important factor in hospital safety," says Warren Freedenfeld, AIA, the principal architect at Rauhaus Freedenfeld & Associates in Boston, Mass. "I recommend a resin epoxy which allows you to vary the silicon that will determine the amount of slip resistance. You need to strike the perfect balance between ease of cleaning (the silicon will make the floor somewhat harder to mop) and safety."

In dry areas, parts of the hospital that will be damp-mopped as opposed to hosed, Freedenfeld recommends the use of porcelain tile with epoxy grout.

"Troweled epoxy is a preferred surface for runs and ward spaces," said Heather E. Lewis, a principal with Animal Arts Design Studios in Boulder, Colo. "However, adding too much grit to an epoxy floor may create a surface that eats mops for lunch!" she warns. "In extreme circumstances, too much grit may actually reduce the surface area between a shoe and the floor, thus making the floor more slippery rather than less."

To make sure the floor will work for your hospital, Lewis recommends having your architect make a mock-up of an epoxy floor so that you can inspect it for cleanability and slip-resistance before the entire floor is installed.

Other safe floor materials include vinyl and rubber. Rubber products are very slip-resistant, which is why they are preferred for indoor dog exercise areas and for exam and treatment areas in large animal hospitals. Rubber sheet flooring can also be used in medical areas in small animal hospitals.

"Armstrong makes some of the best vinyl floors," Freedenfeld notes.

"Sheet vinyl, which is a popular material for medical areas, is available in slip-resistant varieties," Lewis says. "These have integral aluminum oxide grains in the top layer or throughout the floor, depending on the product."

While safety floors tend to cost more than other sheet vinyl products, Freedenfeld and Lewis say that they're worth the extra expense.

Keep things visible

Lewis says the most important design considerations for safe animal hospitals are good lines of sight and visibility throughout. "Starting from the parking lot, is the lot well lit? Can you walk around the building at night and safely see where you are going?" she asks. "Inside the hospital, use glass between work areas so that staff and doctors can see each other and be able to help with situations that may get out of control (such as restraining a dog)."

Lewis also recommends using glass in ward spaces to keep an eye on patients. ICU and CCU wards should be highly visible and located in primary traffic areas where patients can be monitored continuously.

Lewis's suggestions may be substantiated by Hub's article "Safety First 315" (available by calling the AAHA Business Insurance Program's Fax On-Demand Service, 866-380-AAHA). This article states that "Common problems encountered [in animal hospitals] include unsecured storage of controlled substances, blocked or inaccessible exits and materials stored around heat-producing units such as water heaters. . . ."

Lighting is another aspect of keeping rooms and parking lots visible. "Ambient lighting within office space is now a code requirement and varies from state to state," Freeddenfeld says. "It's usually approximately two watts per square foot for office space and .5 to one watt per square foot for parking lots."

In these days when more and more hospitals are watching lighting as part of their efforts to conserve energy, Freeddenfeld recommends striking a balance between energy efficiency and safety needs. "Obviously more lighting is safer, but hospitals are required to maintain a balance between lighting levels and energy efficiency, which varies by state according to each state's code requirements."

Lewis agrees. "Lighting is very important," she says. "However, codes and zoning ordinances typically do not allow light to spill over the lot lines onto adjacent properties. Therefore, site lighting must be done carefully and contentiously to find the balance between good, well-placed lighting and excessive lighting."

Be ergonomic

Twisting, bending, lifting and extended reaching can cause musculoskeletal disorders. According to Hub, these types of injuries occur frequently in the practice of veterinary medicine and may involve strains to the arm, back, shoulder or wrist and affect the body's joints, muscles and tendons.

One way to avoid such injuries is to design workstations according to employees' needs as well as to patients' needs.

"Many veterinarians use [hydraulic] lift tables to avoid injury," Lewis notes. "Lift tables come in several different styles, from against-the-wall models to peninsula models. It is important to talk with your architects at the beginning of the design process about how you wish to examine your patients and design the rooms according to your preferences. Some veterinarians prefer to examine large dogs on the floor, in which case being able to get the exam table out of the way is important."

In addition to lift tables, another area where back strain injuries could happen are animal cages. Freeddenfeld notes that two-tiered cages are better than three-tiered cages, if space allows for them, because it can be dangerous lifting animals in and out of the top tier of cages.

Storage areas are other parts of the clinic that are often poorly planned. Make sure that heavy items such as large food bags are kept on lower shelves for easier handling.

"Many of the common-sense safety considerations such as eliminating trip hazards, eliminating unsafe wall protrusions and designing safe stairways are governed by building codes and handicap-accessibility laws," Lewis says. "Your architect should automatically design to solve these problems. But designing a great hospital means going beyond the basics. Veterinarians should communicate with their design professionals

at the very beginning of the design process about the common workplace safety problems that they face, such as lifting injuries, dog bites etc. Talking about these problems early creates a great dialog and gives the design team an opportunity to create effective solutions."

Training staff for safety is key

Finally, keep in mind that the best-designed facility will only be as safe as the people who use it. The Hub article "Safety First" says, "Most practices do not present hazardous environments; however, many need safety reminders on issues commonly taken for granted. Claims investigations revealed that the injured employees knew better than to act unsafely but they just didn't think an accident would happen to them. They let their guard down and underestimated the situation."

A final tip: Keep signed and dated checklists to use as documentation that your practice has attempted to correct any safety hazards. "This information can be presented to OSHA, upon request, when documentation is needed to prove you attempted to address a problem," says a Hub article on accident prevention. "When you complete [a safety] inspection, use the checklist as a way to communicate the findings with all employees."

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