



BELLA MOSS
FOUNDATION

Designing a Veterinary Facility with Infection Control in Mind



When designing a veterinary facility, practice hygiene is of utmost importance for both the health of the animals being treated and the safety of staff and clients. Proper hygiene ensures that infections are prevented, surfaces remain clean, and the facility is a safe environment for animals, their owners, and staff. Here are several key considerations for integrating hygiene into the design of a veterinary practice:



Staff Training Material





Layout and Flow of the Facility

> SEPARATION OF CLEAN AND CONTAMINATED AREAS

To prevent cross-contamination, design separate zones for clean and contaminated activities. For example, treatment rooms, surgery areas, and laboratories should be distinct from areas where pets are boarded or groomed.

> ONE-WAY FLOW

Design the layout to encourage a one-way flow of animals and staff. For example, animals should enter the facility in a designated intake area, be treated or examined in a separate area, and leave through a different exit.

> ISOLATION AREAS

Ensure there are isolated rooms or areas for animals with contagious diseases to prevent the spread of infections, moreover that high risk patients can gain access to these areas, without first contaminating clean areas of the facility.

> AVOID SHARP INTERNAL ROOM CORNERS

As these are challenging to sanitise.

> DESIGN OUT DUST TRAPS

Cupboards should go up to the ceiling so there is no dust trap on top of them. Ensure that all surfaces that must be sanitised are accessible. Ensure that all equipment is put away in cupboards, rather than being left out on shelves.

> DO NOT ADMIT PATIENT CARRIERS OR EQUIPMENT WITH PATIENTS

Cat carriers, dog beds and toys are often the most contaminated surfaces in any vet facility; prevent their entry into your facility.



Materials Selection

> NON-POROUS SURFACES

Choose materials that are easy to clean and disinfect, such as non-porous surfaces (e.g., stainless steel, epoxy-coated floors, sealed concrete), even in the clients' waiting area, as clients typically have low knowledge or awareness of the importance of infection control and hygiene. Avoid porous materials like untreated wood or carpeting that can harbour bacteria and other pathogens.

> SEAMLESS SURFACES

Design with seamless surfaces in mind, as joints and seams in flooring, walls, and counters can trap dirt and bacteria.

> ANTIMICROBIAL COATINGS

Consider using antimicrobial coatings for high-touch areas to reduce the buildup of bacteria, mould, biofilm or organic material.





Flooring

> SLIP-RESISTANT FLOORING

Flooring should be non-slip and easy to clean. Rubber or vinyl flooring are good options for wet environments where spills may occur.

> WATERPROOF FLOORING

Use waterproof flooring in areas prone to moisture, like exam rooms, surgery and bathing areas, to prevent water damage and bacterial growth.

> COVING

The flooring in all clinical areas must include a jointed waterproofing of the bottom 15-25cm of the walls (coving).



Airflow and Ventilation

> PROPER VENTILATION

Ensure good ventilation throughout the building to reduce airborne pathogens, (70% of the top 20 pathogens in veterinary practice have the ability to be airborne). The use of exhaust fans in surgery or treatment rooms helps maintain sterile environments and removes contaminated air.

> HEPA FILTERS

Install high-efficiency particulate air (HEPA) filters in areas where sensitive animals are treated, to improve air quality and reduce allergens and airborne pathogens.

> CLEAN FILTERED AIR

Should be introduced into clean areas, and soiled or contaminated air should be removed from more contaminated areas, thereby reducing the risk of contaminated air moving into clean areas.



Waste Management

> MEDICAL WASTE DISPOSAL

Provide a well-designed and easily accessible area for disposing of medical waste (needles, bandages, etc.) in accordance with local regulations. This should be clearly separated from regular trash.

> ANIMAL WASTE DISPOSAL

Design a designated area for handling animal waste. For example, use covered bins and waste disposal systems in areas like exam rooms and kennels.



Cleaning/Changing Stations

> HAND HYGIENE STATIONS

Install handwashing sinks or sanitising stations throughout the facility, especially in treatment areas, waiting rooms, and near animal handling areas. Ensure easy access to soap, water, and paper towels or hand dryers.

> CLEANING SUPPLIES STORAGE

Provide ample space for the storage of cleaning materials, disinfectants and tools in a safe and organised manner. Ensure these supplies are easily accessible but out of reach of animals or clients.

> ENSURE THAT STAFF ARRIVING TO WORK IN HOME SHOES/CLOTHES

Can change into clean work uniforms on arrival at work, without first contaminating clinical areas with home clothes.



Animal Handling and Safety

> EXAM AND TREATMENT TABLES

Tables should be made of durable, easy-to-clean materials. They should also be adjustable to accommodate various animal sizes and allow staff to maintain proper hygiene while handling animals.

> KENNELS AND CAGES

Design kennels with smooth, non-porous surfaces and ensure they are easy to clean and disinfect. Cages should also be large enough to allow animals to move comfortably while minimising stress.

> ENSURE THAT SURFACE HYGIENE IS ASSURED BY REGULAR TESTING

ATP testing yields quantified surface hygiene assessment within seconds, to assure cleaning methods and clean working practices (i.e. avoidance of fomite creation).



Sterilisation and Surgical Areas

> SURGICAL SUITE DESIGN

The surgical area should be designed with a clean, controlled environment in mind, with proper sterilisation stations for surgical instruments. Positive air pressure can be used to prevent contaminants from entering. No member of staff may enter a theatre at any time without applying suitable PPE, in particular a face mask.

> AUTOCLAVE AREA

Designate a space for autoclaves and sterilisation equipment that is separate from areas where animals are treated to ensure a controlled environment for sterilising instruments.





Lighting

> BRIGHT, UNIFORM LIGHTING

Proper lighting is essential for cleanliness and safety. Well-lit spaces help staff spot potential issues with cleanliness and helps to ensure proper cleaning and sterilisation can take place.

> UV-C LIGHTING

Some veterinary facilities use ultraviolet (UV-C) lighting in certain areas to help disinfect and kill germs in the air.



Maintenance and Inspection

> EASY-TO-MAINTAIN DESIGN

Ensure that the building's design allows for easy maintenance of hygiene standards. For example, a design that allows staff to easily inspect and clean hard-to-reach areas can help maintain cleanliness.

> REGULAR INSPECTIONS

Implement regular unannounced quantified measurements of cleanliness / contamination and inspections, in order to be able to assure clients, staff and owners of the hygiene outputs and standards. All areas should be measured, as apparent low risk areas or surfaces (e.g. kettle handles in staff rest areas) can often be the reservoir of contamination that is spread around the facility.



Client Education and Communication

> CLEAR SIGNAGE

Use signs to educate clients on hygiene practices, such as using hand sanitisers, keeping pets on leashes, or not bringing sick animals into public areas.

> WAITING AREA CONSIDERATIONS

Design a waiting area that encourages cleanliness. Use antimicrobial furniture and ensure that waiting rooms have ample space to keep animals and people distanced to reduce the risk of spreading germs.

By prioritising these aspects of hygiene in the design of a veterinary facility, you'll create a safe, functional, and clean environment that supports animal health, staff well-being, and client satisfaction.

