TC
ERCİYES UNIVERSITY
FACULTY OF VETERINARY MEDICINE

INFECTION CONTROL PROGRAM

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GENERAL CONCEPTS

Every veterinary clinic, regardless of size or type, should have a documented infection control program. This can range from a simple written document of basic infection control practices to a formal infection control manual with specific training, monitoring, surveillance, and compliance programs. The absence of a clearly defined infection control program can lead to unnecessary patient morbidity and mortality, as well as exposure of veterinarians, staff, and owners to zoonotic agents. As the veterinary profession evolves, improved infection control is a necessity. Advances in the veterinary profession have led to longer animal lives and pet owners demanding that their pets achieve the same health standards they can achieve for themselves. With the advances in the veterinary profession, animals are at risk of contracting infections due to more invasive and immunosuppressive treatments. In addition to the goal of achieving good clinical practice standards in veterinary clinics, the increasing demands of society in this area have made it necessary to establish infection control programs in veterinary clinics . Although it is not always possible to control the morbidity and mortality rates associated with diseases in animals, the potential consequences of zoonotic diseases on animal owners and veterinary health workers are issues that should be given importance and taken into consideration.

Infection prevention and control measures can be divided into three main categories: reducing exposure, decreasing susceptibility, and increasing resistance to infectious pathogens.

1. Reducing exposure is often the most important step in disease control. If a pathogen does not encounter a host, disease will not occur. The number of organisms to which a host is exposed is also an important factor in determining whether colonization or infection (disease) will occur.
2. many factors interact to determine whether an infectious disease will develop in a given host. In most cases, simply exposing an animal to an infectious agent does not mean that the disease will occur. Although not always possible to measure, certain factors such as pathogenicity of the agent, the presence of different serotypes and biotypes, as well as the species, age, breed, sex, immune status, and physiological condition of the hosts may cause increased susceptibility to infection and disease. Another factor that affects an individual's susceptibility is the number of infectious agents ingested. Although these factors that affect the susceptibility of the host are not always controllable, efforts should be made to develop infection control programs in clinical conditions by taking these conditions into account. Other factors that affect susceptibility include the correct use of antibiotics and other drugs, adequate care and feeding, adequate pain control during applications, and the correct identification of the main causative agent and implementation of appropriate treatment protocols.
3. Measures to actively increase a host's resistance are available in the veterinarian Veterinary practices are widely used, but they should be considered only as a third line of defense after those used to reduce exposure and susceptibility. Vaccination is currently the main technique used to increase the

resistance of animals or humans to infection. However, no vaccine is 100% effective. Therefore, while vaccination is an important part of infection prevention and control, it should not be the sole component of an infection control program. In addition, many animal-human associated infections are caused by opportunistic microorganisms for which vaccines are not available.

Transmission of infection during healthcare delivery requires three elements: a source of infectious microorganism, a susceptible host, and a source of transmission for the microorganism. Prevention of infection in animal health facilities should be directed primarily at interrupting the transmission of microorganisms from source to host, because agent and host factors are typically more difficult to control.

SOURCES OF INFECTION

Animal sources of infectious microorganisms;

- Animals contaminated with infectious agents (pathogen present inside or outside the body but no clinical disease or host response),
- the pre -clinical (incubation) period, there is no shedding of the agent, but the agent continues to shed. animals he eats
- Animals that show clinical signs and shed the agent during the acute disease period
- Animals that continue to shed the agent even though they do not show any clinical signs as chronic-persistent
- Animals that are recovering from the disease but continue to shed the agent
- Humans can also be an important source of zoonotic pathogens, as in the disease periods mentioned above in animals. In addition, human clothing, body surfaces, especially hands, are an important source of contamination.

Other potential sources include food, water, and even the animals' own body microflora . Medical equipment, consumables and medicines, animal bedding, environmental surfaces, and similar tools and equipment, including contaminated waste, can also be important sources of infection. Microorganisms such as bacteria, viruses, fungi, and parasites that can cause disease can be transmitted by vectors such as lice, mosquitoes, flies, ticks, fleas, rodents, and other pests, in addition to the above-mentioned ways.

Host

Reducing Host Susceptibility

Reducing susceptibility to infection is quite difficult in the hospital environment. Factors affecting immunity should be considered in relation to sick animals, such as using the correct antibiotics, minimizing the use of immunosuppressive drugs, avoiding sudden diet changes, providing adequate nutrition, adequate pain control and limiting the use of invasive devices. It is not possible to directly reduce the susceptibility of hospital personnel to infections, but necessary precautions should be taken

for individuals with increased susceptibility to infections, such as those whose immune systems are suppressed due to illness or medical treatment, those receiving antibiotic treatment, those with open wounds or those who are pregnant . Establishing good communication between veterinarians, veterinary health workers and hospital management is one of the most important steps in reducing the risk of zoonotic infections.

Increasing host resistance

Vaccination is the main technique used to increase the resistance of animals and humans to infection. No vaccine is 100% effective and there are many infections for which there is no vaccine or treatment yet. When developing vaccination programs for employees, it is necessary to evaluate the presence and prevalence of the disease in the region, the risks it poses to healthy and immunocompromised individuals, the transmission routes of the infection and the possibility of transmission to employees, the treatability of the disease, as well as the effectiveness and safety of the vaccine. Vaccination can only be maximally effective when used in conjunction with other appropriate infection control practices.

INFECTION

Microorganisms are transmitted in animal health facilities by four main routes: contact, droplet, airborne and vector-mediated transmission. The same microorganism can also be transmitted by more than one route.

1. **Transmission through contact:** This is the most important and frequent form of infection associated with animal health institutions. It can occur as direct and indirect transmission.

when microorganisms are transmitted through contact between a living body surface and another living body surface . This may result from a veterinarian's hands coming into direct contact with an animal's wound. For example, when two dogs wait in a clinic and sniff each other, a pathogen or opportunistic microorganism that may be present in the nose or perianal region may be transmitted directly, as well as a wound or cut on the veterinarian's or the sick animal's hand.

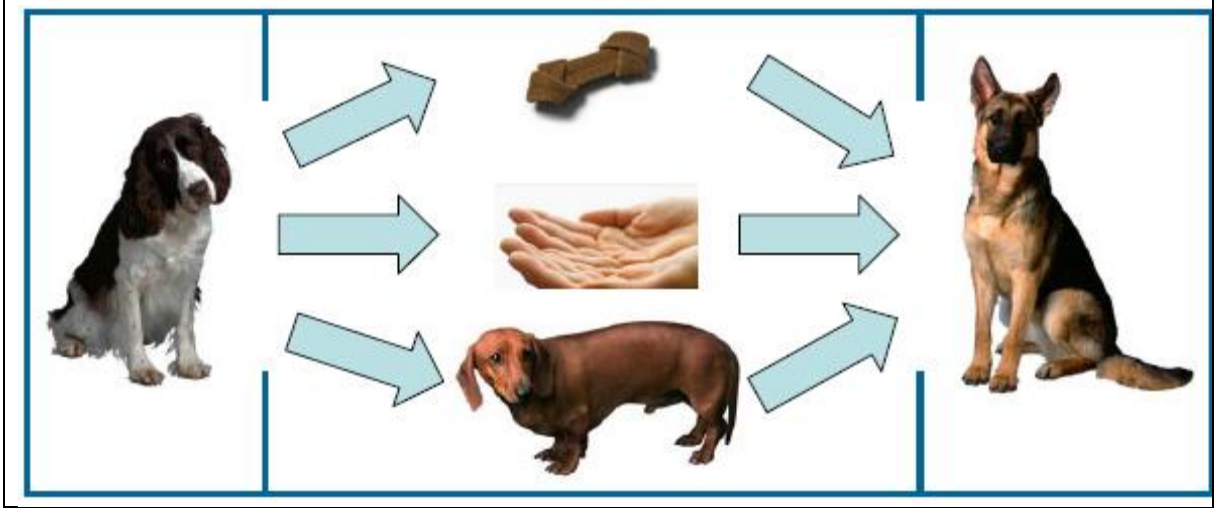
Indirect transmission is the transmission of the disease without direct contact between two living things. Transmission may occur through contact with a material or equipment contaminated by an infected animal or human or after healthcare workers or animal owners touch another healthy animal without washing their hands or changing gloves after touching an infected animal.

2. **Transmission by droplets:** Theoretically, it is a form of direct transmission. However, the transmission mechanism of pathogenic microorganisms from host to host is quite different in direct or indirect transmission. Droplets are produced from the source animal mainly during coughing or sneezing and during the performance of certain procedures such as sucking. Transmission occurs

when droplets containing microorganisms from the animal travel a short distance (usually less than one meter) through the air and come into contact with the conjunctiva (i.e. in the eye), nasal mucosa, mouth or an open wound of the new host. For example, a cat with an upper respiratory tract infection can transmit viruses or bacteria to another cat in the waiting room by sneezing, even if the animals do not come into direct contact with each other, especially if they are face to face. Since droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission, i.e. , droplet transmission should not be confused with airborne transmission. Droplets can also contaminate the environment and provide indirect contact transmission.

3. **Airborne transmission:** Occurs through the spread of airborne droplet nuclei (5 μm or smaller, approximately 2-3 times smaller than bacterial pathogens) from partially evaporated droplets containing microorganisms or from dust particles containing infectious agents. Microorganisms, thus transmitted, remain suspended in the air for long periods and can be widely dispersed by air currents. Depending on environmental factors, they may be inhaled by another host in the same room or may reach hosts over longer distances from the source. Airborne transmission of pathogens in veterinary clinics is very rare.
4. **Vector-borne transmission:** Microorganisms can be transmitted through vectors such as mosquitoes, flies, ticks, fleas, rats, and other insects. Some can transmit agents indirectly as mechanical vectors while moving between animals, while others can transmit agents directly by biting and sucking blood from hosts and biting other creatures. It is important to take control measures to reduce or eliminate the presence of such vectors in veterinary clinics.

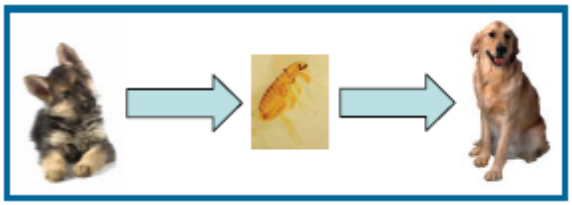
Direct Contamination



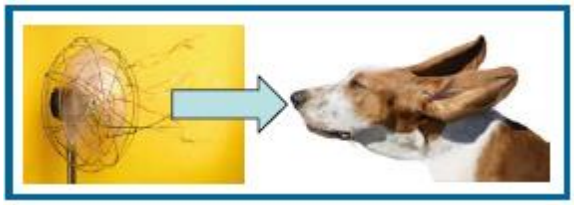
Indirect Contamination

Transmission via droplets

Vector transmission



Airborne transmission



INFECTION CONTROL MEASURES.

The coordinated efforts of occupational health and safety groups and civil engineers have created a framework for infection control in human medical facilities that includes three levels of engineering controls, administrative controls, and personal protective measures. These levels of control can be readily applied to veterinary practices.

1. Engineering controls are built into the design of a facility (e.g. , room design, sink placement, HVAC systems). Infection prevention and control professionals must be involved in designing and planning new facilities. They can also help plan and design improvements that can be incorporated into an existing facility. Engineering controls include the logical design of clinics to facilitate routine infection control measures such as hand washing, proper sanitation, and

separation of animals of different species and different infectious disease risks. All new building or renovation plans should be evaluated from an infection control perspective.

2. Administrative controls include hand hygiene protocols, vaccination of animals and personnel, protocols for managing animals and personnel during an infectious disease outbreak, and protocols for caring for animals with zoonotic infections.
3. While essential, Personal protective equipment (PPE) is the least desirable means of controlling infectious hazards because it does not eliminate them, only providing a partial barrier. However, the risk of exposure to microbial pathogens in veterinary clinics means that proper use of PPE is a critical component of a complete infection control program. Effective use of PPE is dependent on appropriate training and compliance by all personnel. Personal protective equipment should be considered a last line of defense for hazards that other preventive measures cannot overcome.

INFECTION CONTROL PROGRAM

Every veterinary clinic, regardless of type or size, should have a formal infection control program coordinated by a specific person. This infection control practitioner (ICP) should develop protocols, ensure that the protocols are followed, serve as the source of infection control questions, ensure appropriate training of new staff, conduct and interpret surveillance studies, and communicate with staff on infection control issues.

An infection control program (ICP) is not as laborious or time-consuming as most people think. The daily responsibilities are usually minimal. It also does not need to be performed by an infection control specialist or someone with specific training. In human hospitals, ICUs are typically nurses who perform daily infection control tasks, usually under the supervision of a physician who is trained in infection

control, infectious diseases, microbiology, and public health. In veterinary clinics, veterinary technicians or veterinarians may perform these tasks. Individuals with an interest in infection control who are trained in infection control, infectious diseases, and public health may perform these tasks.

In veterinary clinics, the ECU should be the central infection control resource. Among other tasks, it should: •

- Ensure the development of a written infection control guideline
- Training of new staff (especially cleaning staff)
- • Auditing compliance with infection control practices (e.g. cleaning and disinfection practices, hand hygiene observations)
- Obtaining information about suspected hospital-acquired infections and recording the events that occur

A written infection control manual is a critical part of an infection control program. Written documentation should clearly explain infection control practices and ensure that new staff are properly briefed and informed about infection control. In addition, written documentation may be legally required in the case of hospital-acquired infections or zoonotic infections. A written manual demonstrates the level of awareness and effort in infection control and is a critical measure to reduce risk by providing a degree of due diligence.

Support from hospital management is also crucial to an effective infection control program. If practice owners and managers are unwilling to provide adequate time, resources and support to GCP , the infection control program will fail. Hospital management must ensure that all veterinary staff understand and accept the importance of an infection control program and intervene as necessary if problems (e.g. non-compliance) arise.

SURVEILLANCE

Surveillance is an important component of any infection control program. Effective infection control is impossible without surveillance and all veterinary facilities should perform some form of surveillance. Surveillance in veterinary clinics is relatively inexpensive and can be easily incorporated into daily veterinary practice.

Passive Surveillance

In the absence of an ongoing infectious disease outbreak, passive infectious disease surveillance is sufficient for most clinics. Passive surveillance is practical and effective and can be performed in any clinic. It involves the analysis of readily available data (e.g. , bacterial culture and susceptibility results,

results of other infectious disease tests) to determine such elements as endemic disease rates, antimicrobial susceptibility patterns and trends, and changes in disease patterns. An example of passive surveillance is monitoring the surgical site infection rate following all surgical procedures and specific surgical procedures. Monitoring bacterial culture and susceptibility testing can provide information about possible outbreaks of hospital-associated infections as well as information to guide empiric antimicrobial therapy. Routine recording of animals with specific syndromes, such as vomiting, diarrhea, coughing, or sneezing, is another simple way to provide information that can aid in the prevention and early detection of outbreaks and may help identify index cases if a hospital outbreak occurs.

Post-discharge surveillance is more problematic, but is critical for conditions such as surgical site infection, as such infections do not develop until the animal is discharged from the hospital. Post-discharge surveillance may consist of direct examination of the patient at a recheck appointment, evaluation of readmission data, or simple telephone or owner contact.

The key to passive surveillance is to centralise existing data and have a designated infection control practitioner who is responsible for regularly compiling and assessing this data. Collecting data, even entering it into a spreadsheet, is of no value unless someone looks at it. This is particularly important in large clinics or hospitals where many veterinarians may have patients with similar infections but not report them to others, and therefore the beginning of an outbreak may be missed. If an outbreak is detected, a plan can be formulated and implemented to prevent the spread of the disease. This plan should include additional active surveillance efforts to identify additional cases.

Active Surveillance

Active surveillance is the collection of data specifically for infection control purposes. As a result, it is usually more expensive and time-consuming, but it usually provides the highest quality data. This is rarely needed in most veterinary clinics and is typically reserved for large facilities with increased infection control threats and staff to direct such testing or during a specific outbreak investigation. An example of active surveillance is methicillin-resistant Staphylococcus aureus screening is the collection of nasal and rectal swabs from all hospitalized animals, whether or not they have signs of infection .

ROUTINE APPLICATIONS

Content of Routine Practices:

- Hand hygiene
- Use of personal protective equipment (PPE), cleaning and disinfection of the environment and equipment, management of laundry and waste, securing cutting and piercing tools, patient transport, ensuring workplace safety and reducing risk factors.

- Education of veterinarians, hospital staff and patient owners.

HAND HYGIENE

(Modified by the Ontario Infection Advisory Committee, 2008)

Hand hygiene is one of the main issues that all personnel in veterinary and human health services should pay attention to. Proper and effective hand hygiene prevents the elimination and transfer of harmful microorganisms in the skin flora, and also helps prevent redness and cracks that may occur on the skin. The main purpose of hand sterilization is not hand hygiene, but to reduce the number of opportunistic and pathogenic microorganisms in the skin microflora. Because the skin flora, especially on the hands, contains multiple opportunistic and pathogenic microorganisms. Even if pathogenic microorganisms are not found in the normal flora, they can be transmitted from person to person through contact, contaminated equipment and environmental contact. Therefore, two methods are used to ensure hand hygiene. The first of these is; cleaning the hands with soap and running water, and the other is provided by using alkose -based hand disinfectants.

Hand hygiene in the healthcare environment is one of the most effective methods for preventing and preventing infections.



ALCOHOL-BASED HAND SANITIZER

Alcohol-based disinfectants have the ability to kill microorganisms and are more effective than antibacterial soaps. In addition to being applied quickly, skin damage is minimal and it is extremely easy to apply. It can be easily applied at any point. However, it is not recommended to apply waterless disinfectants that are not alcohol-based for health reasons.

Alcohol-based hand sanitizers should contain 70-90% alcohol. The softeners added to them minimize skin damage. There are also products containing alcohol and chlorhexidine on the market. It is reported that chlorhexidine provides an antimicrobial effect on the hands after use, but it is debatable whether this combination provides sufficient benefit in clinical settings. For this reason, it is recommended to scrub the hands with the combination used for a certain period of time using a surgical technique.

Alcohol-based hand sanitizers can kill bacterial spores (*Clostridium* spp .) and *Cyrptosporidium* spp . is ineffective against some pathogens, including alcohol- resistant *Clostridium difficile*. Although it is not effective against all bacteria and spores, alcohol-based hand disinfectants have a very important place in controlling infections. Studies conducted in human hospitals have shown that the use of the hand disinfectants mentioned above is particularly effective against *Clostridium difficile* infections are significantly reduced. However, it is also recommended to clean hands with soap and running water if they are contaminated with any of these organisms. Although water and running water do not provide complete protection against these microorganisms chemically, hand washing performed according to the rules is beneficial by reducing the number of microorganisms. Alcohol is not effective against most other microorganisms, such as parvovirus and panleukopenia. Water and soap are effective against clostridial pathogens and should be used in cases where these agents are suspected.

TECHNICAL

- All jewelry on hands and arms are removed.
- Make sure that hands are visibly clean
- The disinfectant bottle is pumped 1-2 times or until the palm is filled with disinfectant 2-3 cm wide.
- The disinfectant is applied to the entire surface of the hands, the fingertips and between them, the back of the hands and the base of the thumbs, without being overlooked.
- The rubbing process is continued until the product dries on the hand surface. This process is continued for 15-20 seconds with a sufficient amount of disinfectant.
- Afterwards, contact with patients, hospital equipment, and anesthesia machines in oxygen-rich environments such as operating rooms should be made after ensuring that hands are completely dried.


WASHING HANDS

Many of the bacteria and microorganisms found on hands disappear during washing, rinsing and drying of hands.

Gross dirt and visible cleaning of hands are done with soap and water. If there is no running water, soap, dirt and other residues should be cleaned with alcohol or alcohol-based wet towels. In veterinary applications, bar soaps are not recommended because they have the potential to indirectly transmit microorganisms from person to person. Instead, it is recommended to use liquid soap or soap foam.

- The soap to be used should be dispensed by a single-use soap pump.
- After the soap containers are disinfected, soap should be placed in them and used.

- Antibacterial soaps should be used in noninvasive and invasive areas.

TECHNICAL

- All jewelry on hands and arms are removed.
- Hands are washed with normal temperature water. Extremely hot water damages the skin by hardening it.
- Then liquid soap or foam soap is applied to the hands.
- The application process lasts approximately 15 seconds. This is the minimum time required to ensure mechanical cleaning of the hands.
- During this time, the areas between the fingers, the base of the thumbs and the surfaces of the hands that may be overlooked should be completely scrubbed.
- After the scrubbing process, the hands are rinsed with warm water and the drying process is started.
- Drying should generally be done using paper towels and without excessive rubbing with the towel.
- The process of turning off the running water should be done with the paper towel used for drying.

  Note: If air blower devices are used for drying, photocell taps should be preferred for washing hands. Touching the taps for re-closing after washing hands may cause microorganism contamination.

  Situations requiring hand hygiene

  Before and after contact with the patient

  Before performing any invasive procedures deemed necessary

  Before contact with the patient and objects around him/her

  Before and after manipulations with relevant fluids before contact with body fluids taken from the patient

  Before putting on gloves and after taking them off

  Before food intake

  After personal cleaning and using the sink


FACTORS AFFECTING HAND HYGIENE EFFECTIVENESS

- **Skin condition:** dryness, cracking, surface wounds and infection of the skin surface
- **Nails:** Nails that are longer than 3-4 mm should be shortened as they are difficult to clean. Artificial nails and cosmetic products such as nail polish should not be used. It is recommended that nails be shortened as there is a risk of tearing gloves, especially with long nails.
- **Jewelry:** Jewelry and similar items on the hands are not recommended because they are difficult to clean and disinfect and constantly harbor microorganisms. There is also a risk of tearing the gloves used during patient contact.

SKIN CARE

In terms of the importance of hand hygiene, attention should be paid to skin care. In particular, alcohol-based disinfectants that contain softeners should be preferred to prevent skin damage in alcohol-based chemicals that will be used for disinfectant purposes. In addition, personnel with skin damage or sensitivity should consult a specialist as soon as possible. In such cases, it may be recommended to use skin lotions that do not disrupt glove integrity. Alcohol-based skin lotions, especially those used in the market, weaken glove integrity and increase permeability and the risk of tearing. Lotions that are necessary for skin health should be used at the end of the day or water-based lotions should be preferred.

Using hand sanitizer and keeping it in visible places in the clinic shows the importance of disinfection to the patients and provides additional trust in the doctor.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

are designed for the safety of both personnel and patients and reduce the risk of disease transmission and spread. These tools and equipment must be worn in the patient's environment and during the examination. Tables 1 and 2 explain which tools and equipment should be used in infectious diseases. These recommendations should be used not only in hospital environments but also in private clinics. The use of personal protective equipment does not eliminate the need to create patient and healthy environments. It only reduces personal safety and the risk of disease spread.

LABORATORY CLOTHES

is designed to protect normal clothing from contamination , but it is not resistant to liquids. Therefore, it should not be preferred in situations where there is a risk of contamination with diseased fluids. Such clothing should be changed immediately at the end of the day or when it is contaminated with body fluids. Laboratory clothing used in the clinic should not be worn outside, and contaminated clothing should be collected and disposed of in accordance with the rules. In addition, these clothes, which are generally used, should be preferred as disposable.

UNIFORM

It is worn as basic protective equipment in veterinary medicine. It is a durable and easy-to-clean equipment. It prevents the clothes worn by clinicians outside the clinic from getting dirty and contaminated, and it is not recommended to wear these clothes outside the clinic. It is recommended that the uniforms are not taken home to be cleaned and washed, but washed in the hospital laundries with other clothes . Depending on the degree of contamination, they should be washed at the end of each day. It should be worn during surgery and a protective apron should be worn outside the operating room.

NON-STERILE APRON

laboratory aprons. It is used in the preliminary examination of animals carrying infectious diseases and for the purpose of isolation from disease agents. Generally, permeable ones are designed for general examination of patients, while non-permeable ones are designed for full isolation. Disposable aprons should not be worn again and should be removed and collected immediately after the procedure. Full protection should be provided by wearing gloves and other protective equipment with such aprons. Those produced in fabric should be removed immediately after the work is finished and sent to the laundry under control. Both hospital personnel and physicians should wear and remove such aprons in accordance with the rules and should be removed without touching the surroundings. Only the gloves should touch the front surface of the apron worn. Gloves should not be removed before these aprons are removed, first the neck and waist ties should be untied, then the shoulder area should be held and pulled outwards, and finally the arms should be removed. The apron that is completely removed should be folded from the inside out, and finally the gloves should be removed and the hands should be washed. If the clothes worn under the apron become wet or contaminated, they should also be removed and a shower should be taken.

GLOVES

Gloves act as a barrier and prevent the transmission of pathogenic microorganisms. They are worn during patient examinations and prevent disease transmission by providing a protective effect in contact with blood, fluids and secretions. In addition, they should be used not only during patient examinations but also in environmental cleaning, laundries and surface cleaning.

- Gloves should be removed immediately after use. The outer surface of the gloves should never come into contact with the hands during removal.
- Gloves used for examination and other purposes should not be allowed to come into contact with surfaces normally touched by bare hands and personal tools after being worn.
- The gloves used should be removed immediately after the procedure is completed and the hands should be cleaned with soap, water and alcohol-based disinfectants.
- Disposable gloves should not be reused.

Gloves must be changed when examining a different animal or when moving to different examination environments, when in contact with blood and secretions during examination of the same animal, and when examining different animals.

Gloves used during examination and cleaning are made of different materials. The reason why gloves are made of different materials varies according to the purpose of use. Latex gloves are generally preferred, but since they can be allergenic and can easily lose their integrity against chemical agents, nitrile and venil gloves can be preferred as an alternative. Vinyl and dishwashing gloves should be used for cleaning purposes rather than examination, and should be disinfected after each use.

FACE PROTECTION

The use of masks prevents the eyes, nose and mouth mucosa from being exposed to infectious substances. In general, nose, eye masks and full-shield surgical masks are used for this purpose. These masks protect the relevant organs from splashes, sprays and aerosols that can be transmitted.

RESPIRATORY TRACT PROTECTION

Respiratory protective materials are designed to protect against airborne zoonotic agents. However, such protective materials are not used much, especially in field conditions. Veterinarians who work as clinicians in the field do not pay much attention to this situation. The reason for this is that there are not many aerosol- transmitted zoonotic pathogens in veterinary medicine. The N95 type disposable particulate respiratory tract mask is the most commonly used and safe respiratory tract protector for protective purposes.

These types of masks must be properly placed in the respiratory tract and specially designed for bearded people . Another advantage is that they are affordable and easy to obtain, and it is important that the necessary tests are passed before use.

SHOE

Closed type shoes are the equipment that should be worn to protect against injuries caused by falls, stabbing with cutting and piercing tools, and blood, pus and saliva residues in the environment. In order to protect against infectious microorganisms suspected to be present in the environment, disposable or Disposable protective shoe protectors or shoe covers should be worn. This is especially important for veterinarians. Because veterinarians have to examine their patients closer to the ground than human doctors. Shoes worn in a certain environment should not be entered into different environments, and shoe protectors or shoe covers should definitely be used when such a situation is necessary. Used shoe covers and shoe cup protectors should be immediately thrown into the dirty bin and removed from the environment where they are located.

TABLE 1: CONTROL MEASURES OF INFECTIOUS DISEASES ACCORDING TO DISEASE STATUS AND AGENTS

Disease Status	Agent Name (Agent Name)	Disease Name	Zoonotic Risk	Bite or Scratch Related	Environmental Contamination	Arthropod Vector	Personal Protective Equipment Protocol			
							Glove	Apron [a]	Mask [b]	Other
Upper Respiratory Tract Infection	Bordetella bronchiseptica	Bordetella	+		+		+	+		
	Canine influenza virus	Influenza			+		+	+		
	Feline calicivirus	Calicivirus			+		+	+		
	Feline herpesvirus 1	FVR			+		+	+		
Lower Respiratory Tract Infection	Bordetella bronchiseptica	Bordetella	+		+		+	+		
	Francisella tularensis	Tularemia	+	+	+	+	+	+	+	
	Pasteurella multocida	Pasteurellosis								P
	Canine influenza virus	Influenza			+	+	+	+		
	Canine parainfluenza virus	Parainfluenza			+		+	+		
Diarrhea	Campylobacter jejuni	Campylobacteriosis *	+		+		+	+		S
	Clostridium difficile	C. difficile diarrhea	+		+		+	+		S
	Cryptosporidium spp .	Cryptosporidiosis *	+		+		+	+		S
	Escherichia coli	E. coli diarrhea	+		+		+	+		S
	Giardia spp .	Giardiasis *	+		+		+	+		S
	Salmonella spp .	Salmonellosis *	+		+		+	+		S
	Toxoplasma Gondii	Toxoplasmosis	+		+		+	+		S
	Canine parvovirus	Parvoviral Enteritis			+		+	+		S
	Feline panleukopenia virus	Panleukopenia			+		+	+		S
Neurological Symptoms)	Listeria monocytogenes	Listeriosis	+		+		+	+	+	C,E
	Canine distemper virus	Distemper			+		+	+		

	Rabies virus	Rabies*	+	+			+	+	+	C,E
Disease Status	Agent Name (Agent Name)	Disease Name	Zoonotic Risk	Bite or Scratch Related	Environmental Contamination	Arthropod Vector	Personal Protective Equipment Protocol			
							Glove	Apron [a]	Mask [b]	Other
Skin Condition / External Parasites	MRSA	MRSA pyoderma	+	+	+		+	+		C
	MRSP	MRSP pyoderma	?		?		+	+		C
	Fleas	Fleas	+		+		+	+		
	Lice	Pediculosis (Lice Infestation)			+		+	+		
	Mites	Scabies	+		+		+	+		
	Ticks	Ticks	+		+		+			L
	Microsporum spp . Trichophyton spp .	Dermatophytosis , Ringworm	+		+		+	+		
	Sporothrix schenkii	Sporotrichosis	+	+			+			F,S ,L
Wounds and Abscesses	MRSA	MRSA	+	+	+		+	+		C
	MRSP	MRSP	?		?		+	+		C
	Pasteurella multocida	Pasteurellosis	+							P
	VRE	VRE	+		+		+	+		C,S
	Other MDR bacteria	Other MDR bacteria	+				+	+		C
Fever of Unknown Origin / Nonspecific Clinical Symptoms	Bartonella spp	Cat Scratch Disease	+	+		+				B
	Borrelia Burgdorferi	Lyme Disease	+			+				B
	Brucella Canis	Brucellosis *	+				+	+	+	
	Chlamydophila Psittacidae	Psittacosis	+		+		+	+	+	C, E
	Coxiella burnetti	Q Fever	+		+		+	+	+	C,E
	Francisella tularensis	Tularemia *	+			+	+	+	+	C,E
	Leishmania spp .	Leishmaniasis	+			+				B

	Leptospirosis spp .	Leptospirosis	+		+		+	+		C,S
Disease Status	Agent Name (Agent Name)	Disease Name	Zoonotic Risk	Bite or Scratch Related	Environmental Contaminatio	Arthropod Vector	Personal Protective Equipment Protocol			
							Glove	Apron [a]	Mask [b]	Other
Fever of Unknown Origin / Nonspecific Clinical Symptoms (Continued)	Rickettsia rickettsii	RMSF	+			+				B
	Toxoplasma Gondii	Toxoplasmosis	+		+					F
	Canine distemper virus	Distemper			+		+	+		
	Canine adenovirus 2	Adenovirus			+		+	+		
	Feline leukemia virus	Feline leukemia			+		+	+		
	FIV	FIV			+ [c]					
	Rabies virus	Rabies*	+	+			+	+	+	C,E
	West Nile virus	West Nile Fever				+				P
Internal Parasites	Ancylostoma spp .	Hookworm	+		+					F
	Dipylidium My dear	Tapeworm	+			+ [d]				P
	Echinococcus spp .	Hydatid Cyst	+		+		+	+		S
	Taenia spp .	Tapeworm			+					F
	Toxocara spp .	Round Worm (Ascarit)	+		+					F

+: Risk Present / Personal Protective Equipment Required
?: Unknown Risk
FIV: feline immunodeficiency virus (feline immunodeficiency virus)
FVR: feline viral rhinotracheitis (feline viral rhinotracheitis)
MDR : multidrug – resistant
MRSA: methicillin-resistant Staphylococcus aureus (Methicillin Resistant Staphylococcus aureus)
MRSP: methicillin-resistant Staphylococcus pseudintermedius (Methicillin Resistant Staphylococcus (pseudintermedius)
RMSF: rocky mountain spotted fever (Rocky Mountain Spotted Fever)
VRE:vancomycin -resistant Enterococcus spp . (Vancomycin Resistant Enterococcus spp)

[a]: Disposable apron or special lab coat
[b]: Mask covering the nose and mouth (e.g. surgical mask)
[c]: Environmental contamination with blood
[d]: Transmission by swallowing fleas

B: Avoid direct contact with blood
C: Cover cuts, cracks, wounds (damaged) skin
E: Eye protection recommended
F: Prevent fecal contamination (transfer) and direct contact with feces
L: Lab coat (non-specific) is recommended;
P = Only standard Personal Protective Equipment as per procedure
Q: Shoe covers are recommended if there is possible fecal contamination (or urine contamination for leptospirosis) in the area where the animal is kept.
*Notifiable (obligatory reportable) disease in humans in Türkiye.
*Animals suspected to be infected with rabies should be reported immediately to ……

TABLE 2: RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT FOR ROUTINE VETERINARY PROCEDURES

Procedure	Disposable Gloves	Sterile Gloves	Apron / special lab coat	Face Protection [a]	Other
Bandage Change	+				
Crushing (shredding) Medicines					Mask [c]
Dental Procedures (Procedures related to teeth)	+		+	+	Mask [c]
Digital Rectal Palpation	+				
Sterile seroma or hematoma drainage		+			
Anal Sac Cleaning (Emptying)	+				
Fine Needle Aspiration					
Transporting Dirty Laundry (items)	+		+		
Transportation of Stool Samples	+				
Transport of Urine Samples	+ [b]				
Injections: intramuscular and subcutaneous					
Intranasal *Bordetella* Vaccine	+				
Intravenous Catheter Placement					
Opening an Abscess	+		+	(+)	
Gynecological procedures: cat		+	+	+	Q Fever Risk
Gynecological procedures: Dog		+			
Oral Antimicrobial Administration	+ [c]				
Oral Examination	+				
Urinary Catheter Placement		+			
Venipuncture					
Wound cleaning (debridement)		+			
Wound lavage/washing	+		+	(+)	
Wound Suture (stitching)		+			

+: Recommended personal protective equipment
(+): Personal protective equipment is recommended if there is a risk of splashing.
a : Face shield or safety glasses and mask
b : If urinary tract infection is suspected, gloves are recommended
c : Recommended for people with individual drug sensitivity

CLEANING AND DISINFECTION

Cleaning and disinfection are two separate processes. Cleaning is the process of removing visible organic matter with soap or detergent, while disinfection involves the application of a chemical or other procedure to kill remaining microbes that cannot be adequately removed by cleaning. Cleaning is a very important process because the survival of many infectious agents outside the host is prolonged by the presence of organic matter, and organic matter also reduces the effectiveness of disinfectants. Depending on the level of disinfection used, disinfection kills or prevents the growth of many pathogens.

Equipment should be cleaned and disinfected according to its intended use, manufacturer's recommendations and operating method. Equipment should be cleaned before sterilization or disinfection. Surfaces where animals are housed, examined or handled should be made of non-porous, impermeable, easy-to-clean materials to facilitate cleaning and disinfection and to minimize the transmission of infection.

Personnel responsible for cleaning and disinfecting equipment and different hospital areas should be trained on how to handle and use products in the clinic safely. Material Safety Data Sheets (MSDS) should be readily available for all applicable chemical products.

CLEANING

Cleaning requires the removal of all organic matter (e.g. feces, urine, blood, food, dirt, etc.) from a surface. The cleaning procedure for common environmental surfaces is shown in Table 3.

• Ensure that all areas are well ventilated during cleaning.

• After cleaning, all surfaces should be allowed to dry completely.

Cleaning must be done before using disinfectant.

Cleaning loose, dry spills from surfaces:

- To prevent the formation of dust that may contain pathogens:
    - Using a vacuum cleaner with a HEPA filter
        - The filter helps prevent aerosolization of pathogens such as round courts . For this reason, vacuums without HEPA filters should not be used to clean patient contact areas.
    - Spraying the surface lightly with water before mopping or sweeping
    - Using an electrostatic cloth
    - Using an Isak mop
- Exposure to aerosols generated by brushes during cleaning can be minimized by taking certain precautions. If the brush or surface is damp, a mask may be worn to prevent splashing of the contents. A surgical nose-mouth mask will provide some protection against droplet splash. However, it is not effective against finer particles and airborne dry dust. A properly fitted N95 facepiece can provide this level of protection. (See Respiratory Protection on page 23).

Removing sticky, wet or dried organic material from surfaces:

- Such spills should be removed using a brush or cloth with detergent or soap as necessary.
- surfactant properties of the soap are important , not its antimicrobial activity.
- Especially from 120 psi (pounds per square inch) pressure should be avoided. This amount of pressure can cause aerosolization of pathogens and can make surfaces more difficult to disinfect due to the damage that pressure washing can cause to these surfaces. A garden hose sprayer is safer for cleaning small animal kennels because it produces less than 120 psi .

Gloves should be worn during cleaning and disinfection, and hands should be washed after completing any cleaning activity.

DISINFECTION

Disinfection is most effective if it is preceded by thorough cleaning. In these cases, cleaning is particularly important to mechanically remove organisms because some pathogens (e.g., clostridial spores) are highly resistant to disinfection.

- During disinfection, it should be ensured that all areas are well ventilated.
- * Gloves should be worn when working with disinfectants, but latex gloves wear down and lose their integrity when exposed to many chemicals. Disposable nitrile gloves should be used for small tasks. Heavier rubber gloves (e.g., general dishwashing gloves) can be used for larger tasks. However, such reusable gloves should be disinfected after each task.
- It is recommended to use protective glasses when working with disinfectants due to the risk of splashing.
- The selected disinfectant should always be applied according to the product label, paying particular attention to the following:
    - Appropriate dilution
    - Required contact (waiting) time
- the patient or staff has direct skin contact with the surface , or if the disinfectant used damages the surface, it may be necessary to rinse the disinfectant with clean water after the appropriate time has passed.
- After disinfection, all surfaces should be allowed to dry completely.

TABLE 3: RECOMMENDED CLEANING PROCEDURES FOR GENERAL ENVIRONMENTAL SURFACES

SURFACE / OBJECT	PROCEDURES (PROCEDURES)	SPECIAL CASES
Horizontal surfaces with little patient contact (e.g. front office, registration area)	1. It should be cleaned regularly with detergent, e.g. twice a week. 2. If visibly contaminated with feces, urine or body fluids, it should be cleaned and disinfected immediately.	
Horizontal surfaces with high patient contact (e.g., examination tables, scales, and shelters)	1. Clean and disinfect after each patient. The surface should be cleaned of visible residue, then a disinfectant should be applied. Adequate contact time should be provided according to the instructions on the label. 2. High-level disinfection should be provided after contact with high-risk patients (e.g. , diarrhea). If low-level disinfectants are routinely used, higher-level disinfectants (i.e., bleach, oxidizing agent) should be used.	See Tables 5 and 6 to select appropriate cleaning and disinfectant products. e.g. Swiffer ™ wipes) can be used to remove loose lint and dust .
Vertical surfaces (e.g. walls, doors, windows including shutters/curtains)	1. Should be cleaned regularly with a detergent, e.g. monthly 2. If visibly contaminated with feces, urine or body fluids, it should be cleaned and disinfected.	
Hard floors (e.g. tile, wood, sealant cement (filler))	Clean with detergent every day. Disinfect regularly, eg weekly. 2. Clean and disinfect after potentially infectious patients 3. If visibly contaminated with feces, urine or body fluids, it should be cleaned and disinfected.	
Carpets / flooring	1. Vacuum regularly, eg monthly **Note:** If there has been contact with an animal that is shedding a contagious pathogen (e.g. roundworm), vacuuming should not be done without a vacuum cleaner with a HEPA filter. 2. Shampoo or steam clean if necessary to remove visible dirt and debris.	See Tables 5 and 6 to select appropriate cleaning and disinfectant products. Cleaning is very important on these surfaces as it is difficult or impossible to disinfect them .

DISPOSABLE MATERIAL VS REUSABLE MATERIAL

Single-use items (e.g. hypodermic needles) should not be resterilized or disinfected for reuse. Such items should be disposed of appropriately immediately after their first use. In veterinary medicine, some items that are considered single-use items in human health are reused because they are costly and impractical to discard (see Disinfection of Anaesthetic Devices, page 41). There is little objective information on how to disinfect or resterilize such equipment and how often it can be done without compromising the integrity of the item. The level of disinfection required should be assessed as for multiple-use items (below). Items should be carefully examined before each use and replacement for evidence of damage that would compromise subsequent cleaning and disinfection of the item or its function.

Reusable items must be cleaned and disinfected appropriately for each patient. Reusable items used on patients are divided into three categories: **critical** , **semicritical** , and **noncritical** . Each category describes how the items must be cleaned and disinfected to prevent the transmission of infectious agents. In human health care, these categories are defined according to Table 4.

TABLE 4: SPAULDING'S (1970) CLASSIFICATION OF MEDICAL EQUIPMENT/DEVICES AND REQUIRED LEVELS OF PROCESSING AND REPROCESSING

Classification	**Definition**	**Processing / Reprocessing Level**
Critical equipment / device (e.g. surgical instruments)	Equipment/devices that enter sterile tissues, including the vascular system	Cleaning following sterilization
Semi-critical equipment / device (e.g. endoscopes, thermometers)	Equipment/device that contacts, but does not penetrate, intact skin or mucous membranes	High Level Disinfection (minimum) followed by cleaning and sterilization is preferred.
Non-critical equipment/device (e.g. stethoscope)	Equipment/device that does not come into contact with intact skin and mucous membranes or does not come into direct contact with the patient	Low-Level Disinfection followed by cleaning may, in some cases, be acceptable as cleaning alone

For selection of disinfectants see Tables 5 and 6.

In veterinary medicine, exceptions to the level of required processing are typically made for certain semi-critical pieces of equipment that come into contact with tissue or mucous membranes that are normally considered non- sterile, such as the upper respiratory tract or gastrointestinal tract. In these cases, thorough cleaning and low- level disinfection are sufficient unless the patient has a suspected infectious disease and is significantly immunocompromised for the next patient . However, if infectious disease is suspected or the next patient is immunocompromised, cleaning and high-level disinfection or sterilization are recommended to prevent disease transmission. For example, a rectal thermometer should be cleaned and low-level disinfected between each patient, but if used on an animal with diarrhea , it should be high-level disinfected or discarded and replaced.

FIGURE 3: SPAULDING CLASSIFICATION OF MEDICAL EQUIPMENT

Food and water bowls for patients with infectious diseases should be cleaned and disinfected separately, but careful selection of the disinfectant used is necessary, as some disinfectants are approved for use only on food contact surfaces. Otherwise, disposable bowls should be used for these animals. Cleaning alone (with dish soap) is sufficient for food and water bowls for other patients. Toys, litter boxes, and other miscellaneous items should be cleaned and disinfected between patients or discarded if they are not suitable for cleaning and disinfection. Gloves should be worn when touching items belonging to patients carrying zoonotic pathogens or items that are visibly contaminated. Litter boxes should be cleaned, completely emptied, and disinfected daily between patients. Ideally, litter boxes should not be touched by pregnant women, but if daily cleaning and disinfection are performed properly, risks are minimized.

DISINFECTANT SELECTION

There is no standard disinfection program that can be used in veterinary clinics because the clinical environment, surfaces, general practices, and other factors affect disinfectant selection. When selecting a disinfectant for a particular purpose, consideration should be given to the product's spectrum of activity, susceptibility to inactivation by organic matter and potential pathogens in the environment, compatibility with soaps and detergents, toxicity to personnel and animals, required contact time, residual activity, corrosivity , environmental impact, and cost (Tables 5 and 6).

TABLE 5: PROPERTIES OF SELECTED DISINFECTANTS (Modified from Linton et al. 1987 and Blok 2001)

Disinfectant Category	Effectiveness in the Presence of Organic Matter	Advantages	Disadvantages	Measures	Comments
Alcohols: Ethyl alcohol Isopropyl alcohol	quickly becomes inactive	Fast acting No residue Partially non-toxic	Rapid evaporation	Flammable	Not suitable for environmental disinfection Used primarily as an antiseptic
Aldehydes: Formaldehyde Glutaraldehyde	Good	Broad spectrum Partially non-corrosive	Extremely toxic	Irritant Carcinogenic Requires ventilation	Used as aqueous solution or gas (fumigation)
Alkalis: Ammonia			Unpleasant odor Irritant	Do not mix with bleach	Not recommended for general use
Biguanides : Chlorhexidine	quickly becomes inactive	Non-toxic	Incompatible with anionic detergents		Not suitable for environmental disinfection Used primarily as an antiseptic
Halogens: Hypochlorites (Bleach)	quickly becomes inactive	Broad spectrum including sports Cheap Can be used on food preparation surfaces	Inactivated by cationic soaps/detergents and sunlight Requires frequent application	Corrosive Irritant May produce toxic gas when mixed with other chemicals	Used to disinfect clean environmental surfaces Commonly only Sporicidal disinfectant available
Oxidizing Substances (Agents)	Good	Broad spectrum Environmentally friendly	Deteriorates over time	Corrosive	It is an excellent choice for environmental disinfection.
Phenols	Good	Broad spectrum Non-corrosive Remains stable in storage	Toxic to cats Unpleasant odor Incompatible with cationic and nonionic detergents	Irritant	Has some residual activity after drying
Quaternary Ammonium Compounds (QABs)	Middle	Remains stable in storage. Does not irritate the skin. Shows low toxicity Can be used on food preparation surfaces Effective at high temperatures and pH	Incompatible with anionic detergents		It is a widely used primary environmental disinfectant. Has some residual activity after drying

TABLE 6: ANTIMICROBIAL SPECTRUM OF SOME DISINFECTANTS (Modified from Linton et al. 1987 and Blok 2001)

Agent	Alcohols	Aldehydes	Alkalis: Ammonia	Biguanides : Chlorhexidine	Halogens: Hypochlorites (Bleach)	Oxidizing Agents	Phenols	Quaternary Ammonium Compounds (QABs)
Mycoplasmas	++	++	++	++	++	++	++	+
Gram positive bacteria	++	++	+	++	++	++	++	++
Gram negative bacteria	++	++	+	+	++	++	++	+
Pseudomonas	++	++	+	±	++	++	++	±
Enveloped viruses	+	++	+	++	++	++	++	+
Chlamydiae	±	+	+	±	+	+	±	-
Non-enveloped viruses	-	+	±	-	++	+	±*	-
Mushroom spores	±	+	+	±	+	±	+	±
Acid-fast bacteria	+	++	+	-	+	±	++	-
Bacterial spores	-	+	±	-	++	+	-	-
Coccidia	-	-	+	-	-	-	+	-

++ Highly effective; + Effective; ± Limited effective ; - Ineffective

Examples of microorganisms from each category : **Mycoplasmas** : Mycoplasma canis , Mycoplasma felis ; **Gram positive bacteria** : Staphylococcus spp , Streptococcus spp ; **Gram negative bacteria** : Bordetella bronchiseptica , Salmonella spp ; **Pseudomonas** : Pseudomonas aeruginosa ; **Enveloped viruses** : influenza virus , herpesvirus ; **Chlamydiae** : Chlamydophila psittaci ; **Non-enveloped viruses** : feline panleukopenia virus , canine parvovirus ; **Fungal spores** : Blastomyces dermatitidis , Sporothrix schenckii ; **Acid-fast bacteria** : Mycobacterium avium ; **Bacterial spores** : Clostridium difficile , Clostridium perfringens ; **Coccidia** : Cryptosporidium parvum , Isospora spp , Toxoplasma Gondii

* In general, phenols are not effective against non-enveloped viruses, but have been found to be effective against rotaviruses . They have been recommended for use on horse farms to help control equine rotavirus disease in foals. However, they have not shown activity against small animal parvoviruses .

COLD STERILIZATION

materials by immersion in a sterilization solution . The use of cold sterilization is less indicated due to the toxicity of some cold sterile solutions, the time required to achieve sterilization using these chemicals, and the need for an autoclave for sterilization. Its main indications are for the sterilization of materials that cannot withstand steam sterilization, such as endoscopes.

Cold sterilization is an effective method for sterilizing instruments, but its incorrect use can result in ineffective sterilization. Potential problems include the use of inappropriate solutions, improper preparation of solutions (i.e., inadequate concentration), inadequate contact time, or inadequate removal of organic waste from equipment prior to immersion in solution. Commonly used disinfectants, such as alcohol, iodophors , phenolics, and most quaternary ammonium compounds, are not effective sterilizers and therefore are not suitable for use on instruments intended for surgical or other invasive procedures. Of the chemical sterilants , only compounds based on glutaraldehyde and stabilized hydrogen peroxide are effective in sterilizing instruments (if the solutions are properly prepared, stored, and allowed for appropriate contact time).

The contact time required for sterilization using these solutions is long (e.g. 10 hours). Therefore, cold sterilization is not a means for rapid sterilization of surgical instruments that have been accidentally contaminated during surgery or for surgical instruments that will be used frequently on different patients throughout the day. In some veterinary clinics, the various disinfectant solutions in which certain instruments are routinely kept are often referred to as " **cold sterile** ." Misuse of this term should be avoided, as it is recommended that instruments kept in disinfectant solutions other than glutaraldehyde or high-level sterilants not be used for surgery or other invasive procedures.

For the procedure to be effective, instruments must be cleaned by removing all visible organic residue (including blood) before being placed in a clean, fresh, cold sterilant solution. Most chemical sterilants consist of two parts of a solution that, when combined, become the active solution. Consult the product label for the shelf life of the activated solution. Since some cold sterilants (especially glutaraldehyde) are irritating to tissues, all instruments should be rinsed with sterile saline or water before use. As with all chemicals used in the veterinary clinic, Material Safety Data Sheets (MSDS) for these products should be readily available to personnel working with them.

CARE OF ENDOSCOPES

Proper cleaning and maintenance of endoscopes is important to extend the life of the device, and cleaning and disinfection are also important for infectious disease control. Because endoscopes are semi-critical, they require high levels of disinfection when used in humans.

In veterinary medicine, high-level disinfection is required before use in partially sterile areas (e.g., urinary tract), but low-level disinfection is considered sufficient in nonsterile areas (e.g., gastrointestinal tract, upper respiratory tract) unless the previous patient has a suspected infectious disease and the subsequent patient is not significantly immunocompromised. Manufacturers usually provide detailed reprocessing (cleaning and disinfection) instructions for their instruments, which should be kept for reference by personnel responsible for the maintenance of endoscopes. If the endoscope was purchased second-hand and reprocessing instructions are not provided, it is important to contact the manufacturer to obtain a copy.

Here are some general rules for endoscope care:

- Endoscopes should be meticulously cleaned immediately after each use. Endoscopes typically have few moving or removable parts and small channels where moisture, debris , and pus can become trapped. Cleaning should be done as soon as possible to prevent debris from drying on surfaces, which can be difficult to remove later. Prior cleaning is essential for effective disinfection.
- All instruments and suction channels should be thoroughly cleaned after each use, even if the channels are not used during the procedure. Failure to clean these channels is a common mistake and can result in debris , bacteria, and biofilm accumulation within the instrument. This error not only poses a risk of disease transmission to subsequent patients, but also compromises specimen collection and culture.
- Rinsing and drying the endoscope is also essential for proper care. Failure to rinse off detergents or disinfectants may cause irritation to the tissues of the next patient.
- Chemical sterilizers (e.g. , glutaraldehyde) are often used for high-level disinfection or sterilization of endoscopes that cannot be steam sterilized (autoclaved). Consult the manufacturer's instructions for which methods can be safely used for which endoscope. If a chemical sterilizer is used, a timer should be used to measure the exact contact time (too short a time may result in insufficient microbial kill, while too long a time may result in damage to the device).

RAZOR MAINTENANCE

a good quality razor and the maintenance of its blades are of great importance. Improper razor use or maintenance can result in trauma to the skin, a risk of subsequent infection or the transmission of opportunistic pathogens between patients. Following routine use of the razor on intact skin areas and non-infected animals, cleaning with a stiff brush to remove visible dirt and hair from the blade is sufficient. Depending on how frequently the razor is used, thorough cleaning and disinfection of the blade should be performed periodically, as described below.

The shaver should be thoroughly cleaned and disinfected before and after use in any area where the skin or hair has been significantly contaminated with feces, urine, blood or other body fluids, and in areas where the skin integrity has been compromised, in animals with potentially contaminant infections (e.g., an animal with diarrhea). First, a stiff brush should be used to remove visible dirt and hair from the blade, and soap and a damp cloth should be used to remove visible debris from the body of the shaver . The shaver blades can then be sterilized using a chemical sterilant (e.g., glutaraldehyde) or by autoclaving . The body of the shaver can be sterilized using hydrogen peroxide vapor or ethylene oxide (if available). Otherwise, after all visible debris has been removed, a manual wipe should be performed with a cloth dampened with a standard disinfectant solution, paying particular attention to small crevices of the device and ensuring adequate contact time with the disinfectant. Consult the shaver user manual to determine the degree of contact with liquid that the shaver can safely withstand.

WASHING

Single-use, disposable products are ideal for infectious disease control, but they also produce large amounts of waste. Therefore, the laundry plays an important role in infectious disease control in the clinical setting. Although dirty laundry is a potential source of microorganisms, the risk of disease transmission from this laundry can be reduced to almost negligible levels with appropriate hygienic use, storage and processing of clean and dirty laundry.

Linens and specialty clothing used in veterinary clinics (e.g., cage linens, towels, surgical drapes, surgical gowns, scrubs, lab coats) can be a significant vehicle for the transfer of pathogens from one area of the clinic to another and to areas outside the clinic. As a result, clinical clothing (e.g., surgical gowns, lab coats) should always be laundered on-site or sent to a commercial laundromat. This helps prevent the transmission of pathogens to family members, family pets, and the general population. Staff should change into clinical attire at the beginning of their shift and into casual attire at the end of their shift. Clinics should have appropriate laundry facilities or laundry services to accommodate the need for daily or more frequent changes of clothing if necessary.

The number of microbes in dirty laundry (e.g., towels, blankets) and on clothing is significantly reduced during the mechanical action of the washing and rinsing process. Linens used in veterinary

clinics should be washed using detergent and dried in a hot air dryer to increase the killing of microorganisms.

Before washing laundry contaminated with large amounts of organic matter, a pre-cleaning process should be carried out manually to remove the dirt. When large amounts of organic matter are present, it is not possible to adequately clean laundry by machine and washing such laundry may contaminate other laundry.

COLLECTION AND HANDLING

Except for laundry potentially contaminated with infectious agents (see below), all used laundry is handled in the same way. Heavily soiled laundry should be folded or rolled so that the most severe contamination is contained in the center of the pile, without contaminating personal clothing or the environment. Large amounts of solid debris , feces or blood clots should be removed from the laundry with disposable wipes or paper towels, while wearing gloves, and then immediately disposed of in the trash. Feces should not be removed by spraying or shaking with water, as this may contaminate the environment and personal clothing.

PACKAGING AND STORAGE

- Laundry should be carried by hand with minimal shaking.
- Always place soiled laundry directly into a basket or bag designed for dirty laundry.
- Never place dirty laundry on the floor.
- Laundry bags should be securely fastened and not overfilled.
- Wheelbarrows and baskets should be cleaned after each use.
- Laundry bags should be washed after each use. They can be washed in the same cycle as the laundry they contain.

TRANSPORT

Laundry transported by cart should be moved in a way that minimizes the risk of cross-contamination (Avoid moving the cart from potentially contaminated areas (kennel) to clean areas (preparation room, operating room)).

Clean linens should be transported and stored in a way that prevents contamination. If linen carts are used, separate carts should be used for clean and dirty linens.

WASHER AND DRYER

- Using a washing machine with laundry detergent and a dryer is enough to greatly reduce the number of infectious pathogens that come from most dirty laundry.

- If laundry is washed in cold water, an appropriate cold water detergent should be used according to label instructions.
- It should not be assumed that hot water washing will disinfect or sterilize items. Washing at high temperatures (> 71.1 °C) can significantly reduce bacterial counts, but standard household washing machines typically cannot reach this temperature, even when using a hot water setting.
- The heat and drying effect of tumble drying is a critical step in the washing process and significantly reduces the number of bacteria. Therefore, laundry should not be considered clean until completely dry, ideally using the highest possible heat.
    - Drying clothes outdoors can be advantageous if left to dry in the sun because the fabric's surface is exposed to ultraviolet (UV) light. However, it is difficult to expose all surfaces to sunlight, and thick fabrics, products made of multiple layers of fabric, and seams can protect bacteria from UV light. Additionally, if clothes are hung to dry, the antimicrobial effect of tumble drying at high heat is lost. Therefore, tumbling drying is recommended, especially for clothes likely to be contaminated with an infectious pathogen.

Laundry should not be considered clean until it is dried.

LAUNDRY FROM INFECTIOUS CASES

• Linens obtained from potentially infectious cases should be evaluated separately from other linens .

• Laundry should be collected in a separate laundry bag, washed and dried separately.

• Laundry containing as much organic matter as possible and gross contamination of a potentially infectious nature (e.g., feces from a diarrhoeic animal, pus from an infected wound, urine from an animal with a urinary tract infection) should be removed by hand (using gloves and disposable wipes or paper towels as described above). Laundry should then be pre-washed in bleach (9 parts water: 1 part bleach) for 10-15 minutes before being machine washed.

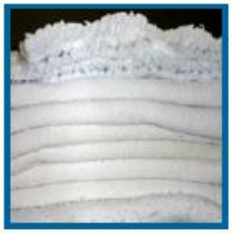
• Bleach should be added to the household detergent in the washing machine according to the label instructions.

PROTECTION OF PERSONNEL

When handling soiled laundry, personnel should be protected from potential pathogens transmitted by wearing appropriate personal protective equipment (e.g., gloves, gown, apron). Personnel who come into contact with soiled laundry should wash their hands when gloves are not changed or removed or when gloves are not worn. Hand hygiene stations should be located in the laundry area.

COMMERCIAL LAUNDRY WASHING FACILITIES

If it is impossible to have the laundry cleaned on site, a company specializing in laundry should be hired. It is important to separate clean and dirty laundry properly in the transport vehicle, as this prevents the mixing of clean and dirty laundry or cross-contamination.



WASTE MANAGEMENT

Veterinary biomedical waste is a potential source of both zoonotic and non-zoonotic infectious pathogens. Therefore, it is important to handle such waste appropriately. In Turkey, biomedical waste is defined and regulated at the provincial/regional and municipal levels (usually by the Ministry/Ministry of Environment). Biomedical waste typically includes fine sutures, tissues (anatomical waste), highly contaminated materials (e.g., materials that have come into contact with blood), and dead animals. National guidelines for biomedical waste management have been published by the Ministry of Environment and Urbanization. However, individual provinces and regions may have stricter regulations. Details are usually readily available through provincial and municipal websites or provincial veterinary associations. Small clinics in rural areas where biomedical waste disposal services are not readily available may arrange with a local human hospital or other health institution to dispose of their waste at a human facility.

Although it is beyond the scope of this guide to describe veterinary biomedical waste management in detail, the following basic information may be helpful:

• Used sharps (or needles) are considered biomedical waste and should be disposed of by municipal and provincial/territorial regulations. Use authorized puncture-resistant sharps control containers to remove, store, and dispose of used sharps such as needles, scalpel blades, razors, and other materials that can cause punctures.

• Non-anatomical waste contaminated with blood (e.g., blood-soaked lap sponges and gauze) is best disposed of as biomedical waste.

• Liquid wastes such as chest fluid, abdominal fluid, irrigation solutions, absorbent fluids, feces, and secretions may be carefully poured into a toilet or drain connected to a sanitary sewer or septic tank. Provincial and local regulations may specify the maximum amount of blood or body fluids allowed to be poured into sanitary sewers. If there is a potential for contamination with waste during this disposal process, appropriate personal protective equipment should be worn.

• All other waste, such as general office waste and non-sharp medical materials, can be disposed of in the normal waste stream and do not require any special treatment during disposal and disposal. The

waste should be in a leak-proof container or bag (e.g. a plastic garbage bag) that can be disposed of with the waste.

Urine and feces are not considered biomedical waste. They are not single-use equipment that has been in contact with an infectious animal (e.g., examination gloves, gowns, bandages that have not been in contact with blood). However, some of these materials may pose a risk to clinical staff, patients, and waste disposal personnel due to the potential for spreading infectious pathogens. Therefore, additional precautions should be taken to minimize contamination of the clinical environment and the risks to humans and animals from potentially infectious waste. These may include double-bagging materials in isolation areas, keeping waste containers closed to prevent entry by other animals, and preventing spillage when waste is disposed of. If contamination of the contents of a waste can occur (e.g., due to a rupture in the waste bag), the container should be thoroughly disinfected after emptying.

CUTTERS/SHARP TOOLS

Injuries from needles and other sharps are common in veterinary medicine but are largely preventable. Although bloodborne pathogen exposure is not at the level of risk in veterinary medicine as it is in human medicine, serious outcomes can occur following needlestick or other sharps injuries, including severe trauma, secondary infection, and drug reactions (toxic, allergic, idiosyncratic).

Hand-held cutting tools are a practical and effective way to reduce workplace injuries in veterinary clinics.

Sharp tools (e.g. needles, scalpels, etc.) and cleaning used tools, appropriate protective clothing (e.g. closed shoes) and safe methods must be used.

- Never remove needle caps by mouth.
- Do not bend or manipulate the needles in any way.
- Do not give uncapped needles to another person.
- To reduce inadvertent injection injuries through animal movements, ensure appropriate restraint of the animal.
- Do not recap needles by hand. If recapping is necessary, use the “One-handed capping” technique (see below), forceps, or needle cap holder.
- Always use sharps collection containers for sharps and needles. These containers are puncture-resistant and leak-proof and prevent discarded sharps from being removed (both accidentally and intentionally).

- Never dispose of needles and sharps other than in an approved waste container. This reduces the risk of accidental injury to the veterinarian, patient, or other personnel (e.g., waste disposal personnel).

The most important precaution to prevent needlestick injuries is to be careful when recapping needles after use. Capped needles can cause more injuries than they prevent. It is necessary to follow a medical procedure or protocol when performing this procedure:

- Use a mechanical device such as forceps or a hemostat to place the cap over the needle.
- Alternatively, the needle can be “ one-handed.” It can be closed using the " scoop " technique:
    I. Place the cover horizontally on a flat surface.
    II. Hold the syringe (with or without the needle attached) and push the needle tip inward, lifting the cap with the needle up.
    III. Once the tip of the needle is in the cap, close the cap with the hand holding the syringe by pushing the cap against an object or pulling the base into the needle's hub.

After live vaccine injections or body and organ fluids aspiration, used syringes should be disposed of with the needle attached in the sharps collection container. After further procedures, the needle can be removed from the syringe and disposed of in the sharps container. This is most safely done by using the needle removal device in the approved disposal container (which allows the needle to drop directly into the container without being handled or touched).

SHARP TOOL SAFETY FOR PATIENT OWNERS

Sometimes, owners may need to treat their animals at home with injectable medications (such as subcutaneous fluids and insulin). Such cases are the responsibility of the attending veterinarian:

- Provide (and document) training on handling sharps, including injection and subsequent disposal procedures.
- Have the patient's owner provide a sharps collection box.
- Instruct the patient owner to bring the sharps collection box to the clinic when it is 3/4 full and replace it with a new container (if necessary).

Used sharps are considered biomedical waste in veterinary medicine. Dispose of used sharps containers in accordance with municipal and/or provincial/regional regulations.

DIAGNOSTIC SAMPLE PROCESSING

Urine samples and all feces, swabs , and body fluids from animals suspected of having urinary tract diseases should be considered as potentially infectious material. During the processing of these samples, disposable gloves and protective clothing (lab coat) should be worn. Gloves should be discarded after use and hands should be washed.

Avoid touching other clean items (such as microscopes, telephones, foods) while handling samples or before removing gloves. A separate refrigerator should be used for diagnostic samples.

A designated area of the clinic should be used for sample processing. This area should be separated from treatment and surgical procedures to reduce the risk of contamination. After processing a sample, materials should be discarded or stored properly and promptly.

- Sample processing areas should be cleaned and disinfected after use.
- Samples taken from animals with suspected or diagnosed infectious diseases should be disposed of as infectious waste.
- Sealed plastic containers should be used for sample storage in a special refrigerator that does not contain food, vaccines or any drugs.
    - Contamination of the outer surface of sample containers should be avoided. If such contamination occurs, it should be cleaned and disinfected before storage.
- Materials such as slides and glass pipettes should be thrown into the sharps collection box.

DENTAL PROCEDURES

Dental procedures often carry a significant risk of exposure to splashes, including saliva, blood, and bacteria-laden debris. Additionally, personnel may sustain cuts and scrapes from dental equipment or teeth during dental procedures . To reduce the risk of transmitting harmful bacteria from animals' mouths to veterinary personnel, the person performing the procedure and anyone in the immediate vicinity should wear the following:

- Protective clothing (lab coat)
- Disposable gloves
- Surgical (mouth-nose) mask
- Goggles

Dental procedures should be performed in an area away from other patients and staff. Procedures such as bandage changes, wound care, or placement of invasive devices (e.g., intravenous catheters, urinary catheters) should never be performed in close proximity to a dental procedure due to the risk of contamination by aerosolized bacteria.

NECROPSY

Necropsies are high-risk procedures because of the potential for contact with infectious body fluids, aerosols, and contaminated sharps. To minimize exposure to these hazards, nonessential persons should be absent during the necropsy . Personnel attending the necropsy should wear:

- Protective clothing (lab coat)
- Disposable gloves
- Safety glasses or full face shield

Additionally, cut-resistant gloves should be worn when opening body cavities of large animals or performing other large incisions to prevent accidental injuries from necropsy knives.

in-clinic necropsies not be performed on any animal suspected of being infected with a pathogen requiring biosecurity measures above level 2 (e.g. *Chlamydophila psittaci* , *Coxiella burnetti* , *francisella tularensis* , rabies virus). Instead, the whole body should be sent to an approved diagnostic laboratory. To protect laboratory personnel, ensure that all requirements for shipping biological samples are met, including reporting of suspected infectious diseases (the laboratory in question can usually provide these).

VACCINATION OF STAFF

should consider the risk of exposure, severity of disease, whether the disease is treatable, and transmissibility of the disease, as well as the quality and safety of the vaccine.

Rabies: Rabies vaccination is indicated for those at higher risk of exposure to the virus . Therefore, all veterinary personnel with contact with animals should be vaccinated against rabies. This includes registration personnel who may have periodic animal contact. Even domestic animals can be exposed to rabies from bats, and the disease may not be suspected during the initial examination. Rabies vaccination for humans is generally considered safe and highly effective. In areas where rabies is endemic, rabies titers should be checked every 1-2 years to ensure the effectiveness of protective immunity and to allow for revaccination if necessary.

Tetanus : Although bites and scratches pose a very low risk of tetanus infection, contamination of cuts and scratches or puncture wounds with soil and other objects still poses a risk. Therefore, tetanus vaccination is indicated for veterinary personnel . Vaccination can be repeated every 10 years.

Influenza: Although human influenza cannot be transmitted to animals, it is a highly contagious and widespread disease. Infected veterinary staff can rapidly infect colleagues, and veterinary clinics can be a source of community infection if infected staff are present. Annual influenza vaccination is recommended for all veterinary staff. Staff should also be encouraged to stay home if they are ill.

EDUCATION AND TRAINING OF STAFF

Staff education and training is a key component of an effective infection control program. All staff, including temporary staff, students, and volunteers, should receive training and education in injury prevention and infection control during their initial orientation and periodically thereafter. Additional training should be provided as recommendations change or when problems with infection control practices are identified. Prevention of zoonotic disease exposure and awareness of hazards associated with individual tasks should be emphasized in training. Staff participation in training should be documented by the infection control practitioner.

EDUCATION OF THE PATIENT OWNER

Owner education is the responsibility of the entire practice team. By helping pet owners understand infectious and zoonotic disease risks and the basic steps they can take to protect themselves and their pets, they can live happier, healthier lives with their pets.

Discussion of zoonotic disease risks should be a routine part of new animal examinations and new client visits. When the veterinarian suspects a potentially infectious disease, and particularly if the disease is zoonotic, the owner should be educated. The owner's notification of this effect should be documented in the patient's medical record. This documentation may also be legally important if an animal's infection leads to human disease.

Materials to be discussed, information to be given to the client in writing, and/or information to be documented in the medical record may include the following:

- What is the diagnosed or suspected disease?
- How is the disease transmitted?
- Household risks
- Risks to other individuals in contact

- Risks to animals in contact
- Symptoms in humans
- Clinical signs in animals
- How to prevent disease transmission from animals to humans or other animals?
- How to treat disease in animals?
- Public health practices such as quarantine and sending tissues to laboratories.
- Situations where the customer needs to seek medical attention upon application.

VISIT OF THE PATIENT OWNER

Given the strong bond between owners and their pets, it is understandable that sick owners would want to visit their hospitalized pets. However, animals that carry contagious pathogens pose a potential risk to clinic staff, the owner, other household members, and other animals in the clinic or the owner's home. As a policy, clients should not be allowed to visit animals that are considered potentially infectious. Owners may be permitted to visit animals that are in critical condition. Still, the use of appropriate personal protective equipment should be demonstrated to sick owners and all infection control procedures should be followed.

CLINICAL PETS

It is now common for veterinary clinics to have resident animals. From an infection control perspective, these animals can transmit disease and pose a risk to their own health. Free-roaming animals within the clinic can be a source of pathogen transmission. Although no objective data is quantifying the risks to patients, humans, or the clinical animals themselves, the theoretical risks to clinical pets and the lack of a real need suggest that the cost of keeping clinical animals should be considered. Based on these potential risks, it is recommended that animals not be kept in veterinary clinics, and efforts should be made to adopt existing pets.

If a clinic has a clinical animal, the following recommendations should be considered. In the clinic, the pet should not have access to any patient treatment area, patient and examination rooms, or operating or patient waiting areas. The animal should have its own food and water bowl, cat litter box, toys, etc. The

clinic pet should also have regular health checks and be included in the appropriate vaccination and external parasite control program. Clinical pets, especially cats, should not be allowed outside unattended due to the high risk of exposure to pathogens such as Salmonella and Toxoplasma (and subsequent contamination of the environment with their feces) by hunting birds and rodents.

VECTOR CONTROL

Some important pathogens are found in wild rodents (mice, rats etc.) or insect vectors (such as fleas, ticks, mosquitoes, houseflies). Some of these insect vectors may be real carriers of certain diseases, that is, certain pathogens develop in their bodies and can transmit these agents to animals during blood sucking, but a few of them are nonspecific mechanical vectors that carry pathogenic microbes from one surface to another . Vector management is an important way to control and effectively prevent the transmission of infectious diseases. Vector management practices include:

- ectoparasites such as fleas are detected when examining animals, treat them with adult antiparasitic medication.
- Store food and garbage in metal or thick plastic containers with tight-fitting lids.
- Promptly dispose of food waste and other materials such as feces that may attract rodents and insects , in accordance with procedures.
- Block off potential points of entry into buildings. Common methods include sealing under doors and around pipes with materials such as steel wool.
- Install and maintain window screens to prevent insect entry into buildings .
- Eliminate potential rodent nesting areas.
- Remove standing water (e.g. empty cans, clogged gutters) from outside buildings, which can be breeding grounds for mosquitoes.

Additional measures may be taken to control specific pests. Consult with a pest control professional for advice on a specific infestation or for additional guidance and information.

DESIGN OF THE CLINIC

Clinic design is important for implementing infection control measures effectively. Unfortunately, infection control is often overlooked in clinic design . Common problems include:

- Movement of large animals and personnel in areas where procedures are performed
- Use of surfaces and floors that are difficult or impossible to disinfect
- Inadequate isolation facilities

- Lack of a separate area for examination or treatment of animals suspected of infectious disease
- Lack of sinks in all examination rooms and treatment areas
- Lack of separate space for diagnostic sample processing
- Lack of separate space for staff to store food and personal items

In established clinics, these deficiencies may be difficult or impossible to correct and are often expensive. However, practical and cost-effective measures to improve infection control in an existing facility can often be implemented. For example:

- Place alcohol-based hand sanitizers in patient -contact areas where sinks are not available .
- Provide a separate refrigerator for human consumption foods and a separate refrigerator for diagnostic samples, vaccines, and medications.

Infection control should be considered when designing a new clinic or during expansion or renovation of existing clinics. An experienced architect should be employed in veterinary clinic design and infection control issues should be emphasized. Having preliminary plans evaluated or reviewed by a veterinary infection control specialist is also helpful. However, a precise evaluation of plans with an infection control mindset can be easily accomplished by any veterinarian.

DISEASES THAT MUST BE REPORTED

Some diseases can be reported to regulatory authorities, usually when the disease is suspected but still undiagnosed. These diseases vary between countries (e.g. rabies). Every veterinary clinic should have a list of notifiable diseases in an area easily accessible to veterinary staff. The Clinical Infection Control Manual should clearly state the required reporting procedures, including contact numbers for the appropriate animal health and/or public health authorities.

List of Notifiable Diseases

A. Diseases of land animals

1- Alum (FMD)
2- Bovine brucellosis
3- Bovine tuberculosis
4- Rabies
5- Bluetongue
6- Rinderpest

7- Bovine spongiform encephalopathy (BSE)

8- Sheep and goat brucellosis

9- Sheep and goat plague (PPR)

10- Sheep goat flower

11- Anthrax

12- Scrapie

13- Chicken plague (Avian influenza)

14- False chicken plague (Newcastle)

15- My Pullor

16- Poultry typhus (Chicken typhus)

17- Glanders (Dumbhead)

18- Durin (Horse syphilis)

19- Equine infectious anemia

20- Equine encephalomyelitis (all types, Venezuelan equine (including encephalomyelitis)

21- African horse sickness

22- African swine fever

23- Classical swine plague

24- Vesicular disease of pigs

25- Small hive worm (Aethina tumida)

26- American foulbrood of bees

27- Tropilaelaps mite (Tropilaelaps mite)

28- Feline spongiform encephalopathy (FSE)

29- Nodular exanthema of cattle (Lumpy skin)

30- Infectious stomatitis (Vesicular stomatitis)

31- Rift Valley fever

32- Contagious bovine pleuropneumonia bovine pleuropneumonia)

33- Enzootic bovine leukosis

34- Epizootic hemorrhagic disease (EHD) of deer

B. Diseases of aquatic animals

1-Epizootic hematopoietic necrosis (Epizootic haematopoietic necrosis)

2-Epizootic ulcerative syndrome (Epizootic ulterior syndrome)

3-Viral hemorrhagic septicemia (VHS)

White spot disease

Yellowhead disease disease)

6-Taura syndrome (Taura syndrome)

7- Infectious hematopoietic necrosis (IHN) of fish

Infectious salmon anemia salmon (anaemia)

9-Perkinsus marinus infection (Infection with Perkins marinus)

10-Microcytos mackini infection (Infection with Microcytos mackini)

11-Marteilia refringens infection (Infection with Marteilla refringens)

12-Bonamia ostreae infection (Infection with Bonamia ostrae)

13- Bonamia exitiosa infection with Bonamia (exitiosa)

14-Koi herpes virus disease (Koi herpes virus disease)

15-Spring Viraemia of Carp (SVC)

Crayfish plague ( )

17-Bacterial kidney disease (Bacterial kidney disease) (BKD)

APPENDIX I: Detailed Summary of Infection Prevention and Control Best Practices For Small Animal Veterinary Clinics

Below is a detailed summary of the contents and key messages of this document. This summary can be used as a review and infectious disease control checklist in addition to the clinical audit tool in Annex II .

1. Infection prevention and control strategies are designed to protect patients, caregivers, veterinary staff, and the public. All veterinary staff must play an active role in protecting every person and animal associated with the veterinary clinic.

2. Reducing exposure to microorganisms is the most important means of disease control in most cases.

3. should have a formal infection control program, a written infection control manual that describes the program, and an infection control practitioner (ICU) to coordinate the program .

4. to have a designated ICP who compiles and evaluates data regularly .

5. Routine Practices critical to the prevention and control of infectious diseases:

a. Hand hygiene, contents:
i. Hand washing
ii. Use of alcohol-based hand sanitizers

b. Risk reduction strategies, particularly those related to:
i. Use of personal protective equipment (PPE)
ii. Cleaning and disinfection
iii. Laundry
iv. Waste Management

c. Risk assessment of animals and personnel:
i. Disease transmission
ii. Disease susceptibility

d. Education

i. Veterinary personnel

ii. Animal owners

iii. Open to the public

6. Hand hygiene is the most important way to prevent healthcare-associated infections. Intact skin is the first line of defense against bacteria.

Some form of hand hygiene should be performed:

a. Before and after contact with a patient (especially before performing invasive procedures)

b. Before and after contact with items in the patient's environment

c. After any contact or activity involving a patient's body fluids

d. Before putting on and especially after removing gloves

7. Personal protective equipment (PPE) is used to protect veterinary staff and reduce the risk of pathogen transmission through clothing to patients, animal owners, veterinary staff, and the public.

a. When working in the clinic, street clothes should always be covered with protective clothing such as a lab coat.

b. Protective outer clothing should not be worn outside the clinic.

c. Laboratory coats and aprons worn when handling patients with potentially infectious diseases should be washed after each use.

d. Gloves should be worn when in contact with blood, body fluids, secretions, excretions and mucous membranes, and when gross contamination of items is involved in cleaning environmental surfaces and washing laundry.

i. Gloved hands should not be used to touch surfaces that ungloved hands have touched.

ii. After use, gloves should be removed immediately and hand hygiene should be performed immediately.

iii. Gloves are not a substitute for proper hand hygiene.

e. Face protection should be worn when exposure to splashes or sprays is likely.

f. Certain patients with infectious diseases may require designated or disposable shoes. In veterinary clinics, patients and staff are often in close contact with the floor, so it is important to prevent the spread of infectious materials on the floor.

8. Cleaning involves removing visible organic matter with soap or detergent, while disinfection involves applying a chemical or other procedure to kill any remaining microorganisms.

a. Cleaning must be done before using disinfectant.

b. Gloves should be worn during cleaning and disinfection and hands should be washed after completing the cleaning activity.

c. Disinfectant selection should be based on the product's spectrum of activity, susceptibility to inactivation by organic matter, potential pathogens in the environment, compatibility with soaps and detergents, toxicity to personnel and animals, contact time, residual activity, corrosivity, environmental effects and cost.

d. Multi-use equipment should be cleaned and disinfected appropriately for each patient. There are three categories of multi-use equipment used on patients: critical, semi-critical, and non-critical.
i. Disinfectant solutions in which a range of instruments are routinely kept are often referred to as “cold sterile,” but such instruments are rarely, if ever, truly sterile. The main indication for cold (chemical) sterilization is for items that cannot tolerate steam sterilization, such as endoscopes.

9. Laundry is also an important component of a complete infectious disease control program.
a. Linens used in veterinary clinics should be washed using detergent and dried in a hot air dryer to support the killing of microorganisms.
i. Laundry from potentially infectious cases should be treated separately from other laundry, including the use of bleach in the wash cycle.
ii. Laundry contaminated with gross organic matter should be hand cleaned to remove this material before laundering.
iii. Laundry should not be considered clean until it is dried.

b. Clinical garments (e.g., scrubs, lab coats) should always be laundered on-site or sent to a commercial laundry equipped to process linens from medical/veterinary facilities.

c. Always place dirty laundry in a basket or bag designed for dirty laundry.

d. Clean linens should be transported and stored in a way that prevents contamination.

e. When handling contaminated linens, personnel should wear appropriate personal protective equipment (e.g., gloves, lab coat) and perform hand hygiene when the task is completed.

10. Veterinary clinic waste is a potential source of both zoonotic and non-zoonotic infectious pathogens. Therefore, it is important that all such waste is handled appropriately.

a. Biomedical waste typically includes sharps, tissues (anatomical waste), highly contaminated (e.g. , bloody) materials, and dead animals.

b. All waste must be in a leak-proof container or bag that can be disposed of with the waste.

c. Additional precautions should be taken to minimise contamination of the clinical environment and the risks to humans and animals from potentially infectious waste (e.g. body fluids and disposable equipment that have come into contact with an infectious animal).

11. All surgical procedures involve breaches in the normal defensive barrier of the skin or mucous membrane and therefore carry an inherent risk of surgical site infection (SSI). Good general infection control practices (e.g. hand hygiene, cleaning and disinfection) are important for preventing SSIs , but there are also surgery-specific infection control measures that should be considered.

a. The surgical field should be used for surgical procedures only.

b. All personnel in the surgical area must wear the designated surgical gown, surgical cap or hair bonnet, and nose-mouth mask while the surgery is in progress.

i. Surgical gowns should not be worn when examining or treating other patients and should be covered with a laboratory coat outside the surgical pack.

c. Steam sterilization (i.e. autoclaving) is most frequently used for sterilization of surgical institutions within veterinary clinics. Quality control tests of autoclaves should be performed regularly.

d. At a minimum, anesthetic equipment, including endotracheal (ET) tubes, should be thoroughly cleaned (inside and out) with hot water and detergent immediately after use to prevent drying and debris from forming biofilm on the device. Additional disinfection may be required for certain pieces of equipment or under certain conditions.

e. Peri-operative antimicrobials are indicated in clean-contaminated, contaminated, and dirty procedures. The need for antimicrobial prophylaxis in clean procedures is unclear.
i. If peri-operative antimicrobials are used, they should be administered so that therapeutic levels are present at the surgical site at the time of the initial incision. Initiation of antimicrobial therapy after surgery is no more effective than not using antimicrobials.

f. Clipping (not shaving) of the surgical site should only be done immediately prior to surgery. The use of good quality, well-maintained scissors and blades helps reduce the risk of skin abrasions, which can provide sites for the invasion and proliferation of opportunistic bacteria.

g. Refillable containers used to store skin preparation solutions (e.g., antibacterial soap and water, alcohol, chlorhexidine, iodine) should be disinfected before refilling to prevent contamination of these solutions with bacteria resistant to their respective antimicrobial effects.

h. After surgery, contact with the surgical incision, especially with bare hands, should be avoided.
i. Bandage changes should be done using aseptic technique.
ii. Owners should be instructed on how to manage an animal with a cut injury and should be shown signs that may indicate the development of an SSI .

12. should have an isolation area to house animals with potentially contagious diseases .

a. Only individual equipment and materials for the care and treatment of the animal should be kept in the isolation room. All items entering an occupied isolation area should be considered infectious and should be disposed of or disinfected after the patient is discharged.
b. Access to the isolation room should be limited to the minimum number of personnel.
c. All personnel entering the isolation area must wear appropriate personal protective clothing, regardless of whether they come into direct contact with the animal.
i. The designated personal protective equipment must remain in the isolation room.
d. All waste in an isolation room should be treated as potentially infectious.
e. Dogs in isolation should not walk in public areas or urinate or defecate in areas used by other animals.

14. As a policy, clients should not be allowed to visit hospitalized animals with suspected infectious diseases .

15. Footwear and floor surfaces cannot be ignored in an infection control program in a small animal clinic because patients frequently come into direct contact with the floor.

a. Footbaths should be considered when personnel are walking on a surface that could be potentially more contaminated than the general floor environment and when such contamination could pose a risk to patients or personnel. Maintaining the correct disinfectants in appropriate concentrations in the footbath and on the foot is essential for proper performance.

16. Wound infections can be caused by a number of bacterial pathogens, some of which can be transmitted between animals or between animals and humans. Wounds provide a prime site for invasion by opportunistic bacteria. a. Sterile gloves should be worn for debridement , treatment, and dressing of deep wounds and those involving vital structures. Clean, nonsterile gloves are adequate for more superficial wounds. b. Bandages should be kept dry to prevent bacterial attack. c. Bandage materials used should be considered infectious. d. Wound treatments and bandage changes should be performed in an area that is easily disinfected. e. Hands should be washed thoroughly after a bandage change, and equipment used for bandage changes should be disinfected between uses. f. Animals with known highly resistant bacterial wound infections are likely to be colonized with these pathogens at other body sites (e.g., nose, rectum, intestinal tract) and should therefore be handled with contact precautions and isolated.

17. There should be clinical policy to not feed raw meat to hospitalized animals.

18. . Animals from shelters and similar facilities should be considered high risk for infectious disease. All animals from such facilities should be examined immediately upon arrival, without contact with other animals in the waiting/reception area. Animals from these facilities should be kept separate from other patients, if possible.

a. For selected procedures (e.g., neutering), all animals should be appropriately vaccinated for their age and treated for relevant internal and external parasites. These selected procedures should not be performed in animals with clinical signs of an infectious disease.

18. Personnel must take all necessary precautions to prevent injury (e.g. bites, scratches) from the animal, including physical and chemical methods if necessary. Experienced personnel, rather than the patient's owners, should restrain the animal whenever possible for the necessary procedures to be carried out.

a. If someone is bitten or scratched by an animal,

i. The wound should be washed immediately and thoroughly with plenty of soap and water.

ii. The incident should be reported to the local public health unit (due to the risk of rabies).

iii. Certain individuals, such as those with bite wounds on certain parts of the body and those with suppressed immune systems, should seek medical attention for any bite injury.

19. Proper sharps practices are a practical and effective way to reduce workplace injuries in veterinary clinics .

a. The most important precaution to prevent needlestick injuries is to re-cover needles after use.
b. Make sure a sharps container is available wherever needles are handled. Never dispose of needles and other sharps anywhere other than the sharps container.
c. If owners must continue injections at home, ensure they handle and dispose of needles safely.

20. aspirates and swabs from animals suspected of having urinary tract disease should be treated as potentially infectious material.

a. Protective outer clothing (e.g., lab coat) and disposable gloves should be worn when handling these samples.
b. Avoid touching clean items (e.g., microscopes, telephones, food) while handling samples or before glove removal.
c. A separate refrigerator should be used to store samples, which should be cleaned regularly.
d. A designated area of the clinic should be used for sampling.

21. dental procedures, and those in the surrounding area should wear appropriate protective outer clothing (e.g., apron), disposable gloves, surgical (i.e., nose and mouth) mask, and safety glasses.

a. Dental procedures should be performed in a quiet area away from other patients and staff.

22. the necropsy should wear appropriate protective outer clothing (e.g., apron), disposable gloves, safety glasses, and masks.

a. It is recommended that in-clinic necropsies not be performed on any animal suspected of being infected with a pathogen requiring biosafety measures above level 2. Instead, the cadaver should be delivered to an approved diagnostic laboratory. Ensure that all requirements for shipping biological samples are met, including reporting of suspected infectious diseases to protect laboratory personnel.

23. All veterinarians who may come into contact with animals must be vaccinated against rabies , except in areas officially declared rabies-free . includes lay staff That might have Periodic animal contact , such as front Office staff .

24. All staff, including temporary staff, kennel staff, students and volunteers, must receive training in injury prevention and infection control.

25. It is the responsibility of the entire team to inform the patient owner.

a. Discussion of zoonotic and infectious disease risks should be a routine part of new animal examinations and new patient visits.

b. The veterinarian must notify the animal owner when he or she suspects a potentially infectious disease, especially if the disease is zoonotic.

26. From an infection control standpoint, veterinary clinics should never have a pet in the clinic.

27. Pest management is an essential aspect of effectively preventing and controlling the transmission of infectious diseases, including examining animals for ectoparasites, properly storing food and waste, sealing potentially harmful entrances to buildings, eliminating potential rodent nesting areas, and removing stagnant water outside buildings.

28. Infection control issues should be considered when designing new clinics or renovating or expanding existing clinics.

a. Designated personnel areas should be reserved for eating, drinking, and breaks. These activities should not occur in any area where animals or diagnostic specimens may be present.

29. Each veterinary clinic should have a list of reportable diseases prominently displayed in an area easily accessible to clinical staff. The Clinical Infection Control Manual should clearly state the required reporting procedures, including contact numbers for appropriate animal health and/or public health authorities.

APPENDIX II: CONTROL OF INFECTIOUS DISEASES IN SMALL ANIMAL CLINICS

Fields/Items	**Fully**	**Partially**	**Not**	**Not**	**Comments**
Clinical design:					
Designated isolation area					
Specified diagnostic sample use area					
Designated staff "break" area					
Clinical "flow" (dirty clean)					
Available protective equipment:					
Gloves:					
Household rubber, reusable					
Latex or other, single-use					
Masks:					
Nose and mouth (e.g. surgical) masks					
N95 masks including fit test					
Apron					
Lab coats					
Goggles / eye protection					
Written policies for dress codes:					
No jewelry (rings or bracelets)					
No nail extensions					
Hand hygiene:					
Alcohol-based hand sanitizer stations available					

Fields/Items	Fully Implemented	Partially Implemented	Not implemented	Not applicable	Comments
Signage for alcohol-based hand sanitizers with instructions					
Sign for hand washing with instructions					
Staff can determine when to use hand hygiene:					
Before and after patient care					
Before aseptic applications					
Before removing and putting on gloves					
After contact with body fluids or mucous membranes					
After contact with contaminated equipment					
After personal body functions (i.e. sneezing, coughing)					
Before eating					
Cleaning and disinfection procedures:					
Written protocols and procedures for cleaning					
Followed written protocols and procedures for cleaning					
Approved and suitable detergents available					
There are disinfectant products with appropriate DIN numbers					
available for patient contact surfaces.					
Approved and suitable disinfectant products are available for equipment and instruments					
Cleaning and disinfection protocol for scissors					
Disinfection / sterilization of medical devices:					
Appropriate cold sterilization technique is used (e.g. product concentration, contact time, equipment properly cleaned before sterilization)					

Fields/Items	Fully Implemented	Partially Implemented	Not Implemented	Not applicable	Comments
Cold sterilization solution is changed regularly.					
The manufacturer's instructions were followed.					
The process for cleaning semi-critical and critical devices, including written protocol for: disassembly sorting and soaking physical removal of organic material rinse drying physical examination winding					
Washing:					
Laundry is provided on site or through a commercial service.					
Laundry is dried at high temperatures (65-70oC)					
Contaminated laundry is pre-soaked in bleach solution.					
Dirty laundry is transported cleanly					
Clean laundry is separated from dirty laundry					
Hand hygiene in the laundry area					
Training is provided on protective practices.					
Use of cutters:					
Approved puncture-proof, labeled containers used					
Containers should be at most 3/4 full					
Containers are accessible in all required areas					
Cutters are disposed of immediately after use.					

Fields/Items	Fully Implemented	Partially Implemented	Not implemented	Not applicable	Comments
Waste separation:					
Clear guidelines regarding waste:					
Biohazardous					
Non-biological hazard					
Vector control:					
Rodent control on:					
Food crumbs and mess eliminated					
Entry points for rodents are closed					
There will be no puddles of water outside the clinic.					
Windows with grills					
Staff vaccination documents:					
Rabies					
Tetanus					
Flu					
Examination rooms:					
Hand washing sinks in all rooms					
Examination rooms have only essential supplies					
Policies in place to clean exam rooms between patients and at the end of the day					
Enhanced cleaning/disinfection protocol for cleaning rooms where an infectious case may be present					
Written procedures for potential personnel exposure to zoonotic pathogens					

Fields/Items	Fully Implement	Partially Implement	Not	Not	Comments
Separate refrigerators for food, vaccines and medicines, and diagnostic samples					
Protocol development and staff training:					
Documented annual staff training and update on infection prevention and control measures Documented annual staff training in the use of personal protective equipment					
Infection control program:					
An infection control practitioner (ICP) is assigned to the clinic to oversee the infection control program.					
Surveillance (active or passive) on site					
Surgical site infections reported to ICP					
All new staff are provided with a copy of the infection control protocols and a signature confirming receipt and understanding is obtained.					
A list of reportable diseases is available in the clinic.					
Contact numbers for the appropriate veterinarian and public health (regional public health unit) should be readily available at the clinic. Quality control sterility indicators included in each autoclaved package Biological indicators are used periodically to ensure adequate sterilization and the results are recorded in a log. All autoclaved packages are marked with the date of autoclaving.					

Fields/Items	Fully Implement	Partially Implement	Not	Not	Comments
Isolation area:					
Special isolation areas for animals with contagious diseases are available and clearly marked.					
The room is ventilated to the outside or the exhaust air is HEPA filtered					
Equipment and PPE remain in the isolation area					
Signage is available and appropriate					
Footbaths or footmats available					
Various:					
No clinic pets					
Policy for patients not to eat raw meat					
Printed materials for customers on current zoonotic diseases					
Written policy for accepting animals from shelters of potentially infectious diseases (e.g. , acute diarrhea, acute upper respiratory tract infection) is provided to front desk staff prior to contact with animals entering the clinic, with veterinarians asking if special infection control practices are necessary.					

Recommendation for use of the audit tool: the designated infection control practitioner (ICP) can use the above audit tool annually (or more frequently) to document improvements in the "score" and identify changes that need to be addressed in the next 3, 6, 9 or 12 months. Improvements can be incremental. Ask different people in the practice to conduct audits and compare their results in a practice quality control meeting – it may be surprising to them !

APPROACH TO SUSPECTED RABIES CASES

Animal cases with acute neurological diseases are commonly encountered in veterinary medicine. In such cases, a case-by-case approach should be taken in terms of rabies, as rabies can have fatal consequences in humans. It is important to be careful when determining whether to declare an animal as "suspected of rabies." A history of rabies vaccination should not be used to exclude the possibility of rabies. If an animal is suspected of having rabies, the veterinarian should pay attention to the following points.

1. The animal owner should be informed that rabies is suspected. To confirm the suspicion of rabies, if the animal dies or is euthanized and rabies is detected, the owner should be asked to list the people the animal has been in contact with recently. The owner should also be asked whether the animal has bitten anyone in the last 10 days and whether there have been any injuries due to scratching, and the answers given should be recorded.

2. The case patient should be reported to the infection control committee practitioner.
3. It should be reported to the Provincial and/or District Directorate of the Ministry of Agriculture and Forestry and the Provincial Directorate of Health where the case originated.
4. The animal must be placed in strict isolation with clear signs warning that the animal will not be handled, unless otherwise stated by the attending veterinarian. Entry into the isolation and treatment of the patient must be limited to the minimum number of personnel required.

is revealed by laboratory confirmation ;

1. The owner should be informed of the potential for zoonotic transmission, that if the animal is killed/killed and rabies is still considered a possible diagnosis, it will be tested for rabies, and the owner should make a list of individuals who have had recent contact with the animal. The owner should be asked if the animal has bitten anyone in the last 10 days. This information should be documented in the medical record.
2. Notify clinic's Infection Control Practitioner or equivalent.
3. Notify local animal health and public health authorities. The Provincial Health Directorate is the public health unit in our country.
4. The animal must be placed in a quarantine compartment where it is clearly stated that it will not be removed without a report from the veterinarian , and where entry, exit and routine checks will be carried out only by designated personnel.
5. A “RABIES SUSPECTED ANIMAL” label should be placed at the entrance of the quarantine compartment and on the cage the animal will be placed in. The names of the personnel who came into contact with the animal and the responsible personnel should be written on this sign.
6. If additional treatment is required, it should be clearly stated to the personnel that this animal is suspected of rabies, and personnel who do not want to come into contact should not be forced.
7. Invasive practices and practices that require contact with the animal's body fluids should not be performed.
8. If any contact with an animal is necessary, protective clothing, gloves, a mouth and face mask must be worn. People with open wounds on their bodies should not contact them, and in cases where contact is necessary, protective measures and bandages such as those used to cover the wound must be used.
9. Rabid animals can have very unpredictable behavior, so extra precautions, such as the use of catch poles and thick gloves, should be taken to reduce the risk of bite injuries.
10. An animal should not be euthanized unless it is in the terminal stages of disease or its owner gives permission.
11. In case of any person being bitten or saliva coming into contact with a mucosal surface or open wound;

a. Open wounds should be washed immediately with soapy water for at least ten minutes. Blood flow from minor injuries should not be stopped and any virus present should be removed from the tissue.

b. The wound should then be disinfected with an antiseptic solution effective on the rabies virus (such as 1 % benzalkonium chloride , 43.70% ethyl alcohol ethanol, thimerosal tincture, 0.01% tincture of iodine).

c. The bitten person should then be taken to the nearest healthcare facility without delay, and post-exposure prophylaxis for rabies should be initiated.

d. The bite case must be reported to the Provincial Health Directorate.

12. When it is determined that the animal has rabies, the duration of post-exposure prophylaxis should be evaluated by the relevant health personnel.

Medical Waste Collection and Disposal Procedure

1- Medical waste is placed in red medical waste bins in the relevant units.

2- Labels are placed on the bags to indicate the nature of the medical waste, which unit it belongs to, and who delivered it.

3- Medical waste is collected daily by the relevant staff and transferred to the medical waste room outside the Faculty.

4- The waste in the medical waste room is delivered to the contracted company (Turanlar Environment, Ankara) that comes twice a week, in return for documentation.

5- Records are entered into the Ministry of Environment and Urbanization system.

Table 1. Example of medical waste label

WASTE NAME	
NATURE OF WASTE	
AMOUNT OF WASTE	
WASTE EXIT DATE	
THE SECTION WHERE THE WASTE COMES OUT	
PERSON DELIVERING THE WASTE	

Research Asst. Emre KARAKAYA	Medical Waste Unit Manager (Faculty Main Building)
Res. Asst. Yunus Emre ATAY	Medical Waste Unit Manager (Faculty Hospital)
	Medical Waste Collection Personnel (Faculty Main Building)
Soner OZBOLAT	Medical Waste Collection Personnel (Faculty Hospital)

1. **PURPOSE** : To determine the method for classifying the departments in the Faculty of Veterinary Medicine Training, Research and Practice Hospital according to their risk status and for correct and effective cleaning.

2. SCOPE : Covers all units of the Faculty of Veterinary Medicine Training, Research and Practice Hospital.

3. RESPONSIBLE PERSONS : Employees of the company from which cleaning services are purchased and those assigned by the hospital administration to carry out cleaning activities are responsible.

4. DEFINITIONS :

ANIMAL HOSPITAL DEPARTMENT	RISK LEVEL	PROPER CLEANING
Clinical Treatment Rooms, Infection Room, Vaccination Room, Operating Room, Special Areas Determined by the Hospital Administration (Isolated Patient Animal Rooms, Necropsy Room, etc.) for all units.	High Risk	Cleaning + Disinfection
Laboratories , General Clinic corridors,	Medium Risk	Cleaning + Disinfection when necessary (in case of contamination of surfaces with body fluids and secretions - blood, vomit, urine, etc.)
Administrative staff rooms, Veterinarian rooms, Staff bathrooms and toilets, offices, medicine and material storage areas, corridors .	Low Risk	

5. APPLICATION :

- Cleaning is done from clean to dirty.
- Cleaning is done before mobility begins.
- The cleaning solution is prepared according to the risk status of the area to be cleaned.
  - ✓ When performing normal cleaning; the detergent is diluted and not rinsed, taking into account the instructions written on the detergent. If there is heavy contamination, it is used directly without dilution and then rinsed.
  - ✓ When disinfection is carried out; there are different disinfectants and their dilution rates. If bleach is to be used for disinfection, it is used diluted 1/100 for normal disinfection and 1/10 for surfaces contaminated with blood and body secretions.
- Cleaning materials are different for each section. They should be used separately according to risk areas.
- Material color is determined according to the area to be cleaned.

Sections	Color to be used (Bucket/Rag)
Clinics and laboratory areas	Red
All wet areas except toilets	Yellow
All dry areas (doors, windows , mirrors)	Blue

- Cleaning should not be continued with a dirty cloth, the cloth should be washed frequently. Cleaning cloths and materials should not be left wet in a bucket.
- Dirty cloths should be washed with hot water and detergent, kept in 100/1 diluted bleach for a maximum of 20 minutes, rinsed and dried before being used .
- Appropriate gloves should be worn during all cleaning operations other than dusting, and gloves should be removed at the end of the operation and hand hygiene should be ensured. If there are wounds, scratches, etc. on the hand, gloves should also be worn during dusting.

- Gloved hands only touch the areas to be cleaned, avoiding areas such as door handles, telephones, tables, etc.
- Gloves used for toilet cleaning should never be used to clean other areas.
- Toilets are cleaned last.
- Mop types should be determined for the cleaning process .
- If there is an uncontrollable accumulation of dirt/material in front of the mop during dry sweeping and mopping for maintenance purposes, it should be removed with a squeegee and dustpan.
- The mop should be moved in an "S" shape in the clean area and in a straight line in the dirty area. No area should be left uncleaned while proceeding with the mop .
- Dirty mops should not be used for cleaning; dirty mops should be washed with hot water and detergent at the end of each day, left in 100/1 bleach for a maximum of 20 minutes , rinsed , washed in a washing machine, dried and used.
- The water used for mopping should be lukewarm.
- bucket should be used for clean water and a red bucket for dirty water. A suitable concentration of liquid detergent should be added to the blue bucket and half of that amount should be added to the red bucket.
- A dirty mop should not be used for cleaning; a dirty mop should first be cleaned in a red bucket, then washed in a blue bucket, and the wringer should be turned over the red bucket to wring it out. At the end of the day, it should be washed in a washing machine with hot water and detergent, dried, and then put back into use.
- Areas wiped with a wet mop should be dried immediately with a dry mop , and warning signs should be placed to prevent contamination, slipping and falling during the mopping process.
- Cleaning agents and disinfectants should not be mixed with each other.
- Cleaning/disinfectant solutions should be changed when heavily contaminated, after use in a patient room for 2–3 animals, after use in an isolation room, and before use in a protective isolation room.
- In cases where it is deemed necessary, cleaning is done without waiting for the period.
- Wheelchairs, stretchers, and cleaning carts are cleaned once a day and as needed. They are disinfected routinely once a week.
- In front of the door The plastic and hair mops used are washed once a week and when necessary.

5.1. CLEANING OF CLINICS:

Cleaning of Veterinary Rooms:

- Cleaning should be done from the clean area to the dirty area,
- First of all, the garbage in the room should be collected properly,
- The door, door surrounds and doorknobs should be wiped every day.
- Telephone handsets should be cleaned with detergent water and dried,
- It is sufficient to wipe computer keyboards once a day and whenever they get dirty.
- Water and detergent should be used for cleaning.

CLEANING OF SICK ANIMAL EXAMINATION ROOMS:

- Garbage in the room should be collected appropriately,
- Garbage bins should be washed and dried and appropriately colored bags should be used.
- Water and detergent should be used for cleaning, but in case of an epidemic, in the presence of a sick animal infected or colonized with resistant microorganisms, or in the presence of blood or body waste in the environment, disinfectant should be used in appropriate concentrations.
- New clean water should be prepared for cleaning each patient animal examination room,
- Sinks should be scrubbed with a scouring agent daily and then cleaned with a chlorinated cleaning agent.

- The patient animal examination table, shelves , and chair in the room should be cleaned with water.
- Dust the window sills daily,
- Window glass should be cleaned every time it gets dirty,
- The door, door surrounds and doorknobs should be wiped every day.
- Telephone handsets should be cleaned with detergent water and dried,
- The floor should be cleaned with a mop and then mopped. The mops used should be washed in the washing machine at the end of the day,
- The mopping process should be done in an S-shaped pattern,
- In mop carts, the blue bucket should be filled with the amount of detergent water recommended by the manufacturer, and the red bucket should be filled with half the amount of detergent water.
- The mats used in patient animal examination rooms and the mats used in corridors should be different.
- Mats should definitely be washed at the end of the day and stored dry. After use, mats should be washed in hot and detergent water, then washed in bleach and left to dry with their tassels facing up. Suggestion: Special bags can be prepared and clinic names can be written on them.
- Water should never be kept in mop carts, water should be prepared immediately before starting cleaning and buckets should be emptied immediately when cleaning is finished.
- At the end of the day, buckets should be washed with detergent and stored dry.
- After cleaning body waste or blood, the mats should be disinfected with hot water or 1% bleach or 1000 ppm chlorine (>30 minutes) or placed in cotton bags and washed in the washing machine.
- Bed curtains should be washed when there is visible dirt or once a month,
- Window curtains should be washed when they are visibly dirty or dirty,
- Unit walls should be cleaned every 12-24 months, and if contaminated with blood or body fluids, they should be cleaned and disinfected immediately.

5.2. CLEANING OF CLINICS;

- Cleaning should be done every weekday.

Cleaning of Clinic Secretariats:

- Water and detergent should be used in cleaning,
- First of all, the garbage in the room should be collected properly,
- Cleaning should be done from the clean area to the dirty area,
- Telephone handsets should be cleaned with detergent water and dried every day,
- Computer keyboards should be wiped once a day and whenever they get dirty.
- The glass on the secretary desks should be cleaned every day.

Cleaning of Veterinary Rooms:

- First of all, the garbage in the room should be collected properly,
- Cleaning should be done from the clean area to the dirty area,
- The door, door surrounds and doorknobs should be wiped every day.
- Water and detergent should be used for cleaning.

Cleaning of Examination Rooms:

- Garbage in the room should be collected appropriately,
- Garbage bins should be washed and dried and appropriately colored bags should be used.

- Water and detergent should be used for cleaning, but if there is blood or body waste in the environment, disinfectant should be used in appropriate concentration.
- Sinks should be cleaned daily with chlorinated cleaning agent,
- The examination table should be cleaned with detergent water and dried,
- Telephone handsets should be cleaned with detergent water and dried every day,

- The patient animal diapers used on the examination table should be changed after each patient animal,
- The veterinarian's table should be cleaned with detergent water and dried,
- Dust the window sills daily,
- Window glass should be cleaned every time it gets dirty,
- The door, door surrounds and doorknobs should be wiped every day.
- The floor should be cleaned with a mop and then mopped. The mops used should be washed in the washing machine at the end of the day,
- The mopping process should be done in an S-shaped pattern,
- In mop carts, the amount of detergent water recommended by the manufacturer should be put in the blue bucket, and half that amount of detergent water should be put in the red bucket.
- The mats should definitely be washed at the end of the day and stored dry. After use, the mats should be washed in hot and detergent water and then washed in bleach and then left to dry with the tassels facing up. However, the most suitable method of cleaning the mats is to put them in cotton bags and wash them in the washing machine.
- Water should never be kept in mop carts, water should be prepared just before starting cleaning and buckets should be emptied immediately when cleaning is finished.
- At the end of the day, buckets should be washed with detergent and stored dry.
- Window curtains should be washed when there is visible dirt or once a month,
- Clinic walls should be cleaned every 12-24 months, and if they are contaminated with blood or body fluids, they should be cleaned and disinfected immediately.

5.3. CLEANING OF THE EMERGENCY UNIT;

Cleaning of Veterinary Rooms:

- Cleaning should be done from the clean area to the dirty area,
- First of all, the garbage in the room should be collected properly,
- The door, door surrounds and doorknobs should be wiped every day.
- Telephone handsets and computer keyboards should be cleaned with detergent water and dried.
- Water and detergent should be used for cleaning.

Cleaning of Sick Animal Intervention Rooms:

- Wet cleaning methods should be used,
- Cleaning should be done from the clean area (the area with the lowest microorganism density) to the dirty area (the area with the highest microorganism density).
- Detergent should be used for floor and surface cleaning in emergency units, and disinfectant should be used in appropriate concentrations when blood or body waste is found in the environment.
- Garbage bins should be washed and dried and appropriately colored bags should be used.
- Sinks should be scrubbed daily with a scouring agent and then cleaned with a chlorinated compound.
- The patient animal stretcher / examination table and the materials around it should be cleaned daily with detergent, never left wet, and must be dried.

- The stretcher and examination table should be cleaned every time the sick animal is changed.
- The mopping process should be done in an S-shaped pattern,
- In mop carts, the amount of detergent water recommended by the manufacturer should be put in the blue bucket, and half that amount of detergent water should be put in the red bucket.
- The mats should definitely be washed at the end of the day and stored dry. After use, the mats should be washed in hot and detergent water and then washed in bleach and then left to dry with the tassels facing up. However, the most suitable method of cleaning the mats is to put them in cotton bags and wash them in the washing machine.

- Water should never be kept in mop carts, water should be prepared immediately before starting cleaning and buckets should be emptied immediately when cleaning is finished.
- Dust the window sills daily,
- Window glass should be cleaned every time it gets dirty,
- The door, door surrounds and doorknobs should be wiped every day.
- Used mops should be washed in the washing machine at the end of the day,
- Cleaning should be done without raising dust,
- Telephone handsets and computer keyboards should be cleaned with detergent and water and dried every day.
- The walls of the emergency unit should be cleaned every 6 months, disinfection should not be done unless there is contamination, and the walls should not be left wet after cleaning.

5.4. OPERATING ROOM CLEANING:

Cleaning of Surgical Units:

- Water and detergent are sufficient for floor and surface cleaning.
- In case of any blood or body fluid spillage, the gross dirt must be removed first and then wiped with disinfectant.

Operating Room Cleaning - Operating Room Cleaning - Daily Cleaning

a. Before the first surgery of the day:

- All tools, objects and lamps should be dusted (with a lint-free damp cloth),
- The reflector areas of the lamps should be cleaned and disinfected,
- The room floor should be cleaned with a wet mop and disinfected.

b. Room cleaning between surgeries:

- The cleaning of the operating room must be done from cleanest to dirtiest.
- Brushes should not be used for cleaning purposes in the operating room.
- All waste used in the surgery should be placed in red waste bags and removed.
- The dirty compresses should be checked between each other (surgical instruments may remain) and thrown into the laundry basket.
- disposable covers (disposable paper covers) are used, they should be thrown into the trash can.
- Garbage bin bags should be changed after each surgery,
- The surfaces of all materials in the room should be wiped with a suitable disinfectant,
- The room floor should be cleaned with a wet mop and disinfectant,
- Solutions used for cleaning should be changed after each surgery.

c. End of day cleaning (after surgeries are completed):

Cleaning at the end of the day should be done for each operating room as stated below.

- All portable devices in the room should be taken outside,
- Lamps, cabinets, etc. should be wiped with disinfectant solution and damp cloths.
- The room floor should be cleaned first and then cleaned with disinfectant solution,
- The surfaces and wheels of the materials taken out of the room should be cleaned, disinfected and placed in the room,
- Surgical hand washing sinks should be first scrubbed with a scrubbing agent and then disinfected with bleach (twice a day)
- Mops used for cleaning should never be left wet.
- Cleaning of surgical hand washing sink head, sinks should be cleaned with 1/10 bleach after being cleaned of coarse dirt and scrubbed with a scouring agent.

d. Weekly cleaning:

- Mobile or fixed lamps should be cleaned with disinfectant solution,
- Doors, door handles, hinges, coatings and spaces between the glass should be cleaned,
- The walls should be washed first with detergent and then with a disinfectant solution and dried with a clean cloth.

- The floor should be washed with a washing machine or brush,
- Operating table, aspirator, hangers, oxygen tank hoses, buckets, cabinets etc. should be dried after being washed and disinfected.
- Cleaning materials should be separate for each room,
- Cleaning solutions should be prepared separately for each room immediately before the procedure.

e. Cleaning up after blood and body fluid spills:

- All blood and body fluids should be considered infectious , and cleaning should be done safely in case of spills and splashes, first by absorbing the liquid with a cloth or paper towel and then cleaning with a 1/10 disinfectant solution.
- Liquids dripping or splashing onto solid surfaces should be cleaned with paper towels to remove coarse dirt.
- 1/10 sodium hypochlorite solution (bleach) or tablet and rinsed with clean water,
- All used materials should be placed in a red waste bag,
- Personnel performing the process must wear shirts and gloves to protect themselves,
- Hands must be washed after the procedure.

5.5. LABORATORY, RADIOLOGY AND STERILIZATION UNIT CLEANING:

- Cleaning should be done from clean to dirty.
- Dry sweeping and shaking should not be done.
- Cleaning materials should be different for laboratories , radiology units, rest rooms, toilets, etc.
- Laboratory and Radiology unit work areas and floors should be cleaned with water and detergent, then wiped with disinfectant.
- A lint-free cleaning cloth should be preferred.
- A double bucket-pressed mop cart should be used for floor cleaning. The detergent water recommended by the manufacturer should be put on one side of the two-compartment mopping bucket, and half of that amount should be put in the red bucket, and the cleaning should be done.
- Cleaning/Disinfectant solutions should be changed frequently when contaminated.

- When the mopping process is finished; The mop is washed thoroughly, rinsed, and wrung out well. Then it is left in 1/10 bleach for 30 minutes, rinsed, and wrung out. It is left to dry.
- The mop bucket is also washed, rinsed, disinfected, turned upside down and left to dry.
- Dirty areas such as toilets should be cleaned last. Gloves and cleaning materials should not be used elsewhere.

Cleaning of the laboratory work area:

- After the daily cleaning with water and detergent by the cleaning staff every morning, the surfaces are disinfected with 1/100 bleach.
- Frequently touched surfaces in the laboratory and radiology unit (door handles, telephone, computer keyboards, sinks and taps, electrical switches, devices) should be cleaned frequently.
- Walls should be cleaned with water and detergent.
- When blood or biological material is spilled in the laboratory or radiology unit, it is covered with an absorbent material such as paper towel, napkin or gauze. 1/10 bleach is poured and waited for 15-20 minutes. Contaminated materials are taken and thrown into a medical waste bag.
- Broken glass etc. are collected with tweezers etc. The floors are cleaned with water and detergent.
- Garbage bins should be washed and disinfected at the end of the day or when dirty.

5.6. CLEANING OF BATHROOMS AND SHOWERS:

- Bathrooms and showers should be cleaned of coarse dirt,
- Then the sinks should be wiped with a red cloth. (First, scrub with a scouring agent and then use bleach.)

- First, the wall behind the sink should be wiped with a yellow cloth.
- When cleaning the shower and bathtub, the tiles should be wiped first and then the faucet and shower tray should be wiped.
- The floor should be mopped last.

5.7. TOILET CLEANING:

- The toilet should be flushed first.
- The inside of the toilet should be disinfected by pouring powder detergent and brushing it with a toilet brush.
- The area around the toilet bowl should be wiped with a separate cleaning cloth.
- Rinsing should be done after wiping is finished.
- The toilet floor should be cleaned last.
- Cleaning materials used to clean the toilet should never be used for any other purpose.

5.8. FLOOR AND CORRIDOR CLEANING:

- Corridors should be cleaned and dried with a separate mop and detergent water. Disinfectants should never be used in cleaning these areas because it causes the development of resistant microorganisms and a significant economic loss.

5.9. ARCHIVE CLEANING:

- Since the archive meets the definition of least risky areas, water and detergent are sufficient for routine cleaning.
- once a year with a bleach solution diluted 1/100 (10 litres of water, 1 tea glass of bleach, 100 cc).

5.10. ENVIRONMENT AND GARDEN CLEANING;

- Especially the areas in front of Emergency Services, Clinic buildings and Hospital entrance doors will always be clean and well-maintained.
- The gratings in the channels created for water drains will be cleaned daily and replaced regularly.
- The floor and surroundings of the medical waste collection center will be washed daily. The doors of this center will be kept closed.
- The lids of the garbage containers in the hospital garden will be closed and no garbage will be allowed to be scattered around.
- In rainy weather, covers used for this purpose will be placed at the entrances of clinics and main buildings to prevent contamination when staff and animal owners enter with muddy shoes.
- The cleanliness of the hospital surroundings and gardens will be periodically inspected by the administration and inspectors.
- The necessary materials and equipment for garden cleaning and tidiness (pickaxe, shovel, broom, rake, scissors, sickle, etc.) will be provided by the administration.

SURFACE OR GROUND	**FREQUENCY OF PERFORMANCE**	**MATERIAL AND METHOD**
BATHROOMS	*Clean at least once a day. *Disinfection after each animal examination.	* It should be cleaned with water and chlorinated detergent and disinfected with 1/10 bleach. *Clean by brushing or rubbing.
TOILETS	*Clean at least twice a day. *Disinfection once a day.	* It should be cleaned with water and chlorinated detergent and disinfected with 1/10 bleach. * Toilet brushes should be kept dry.
SINK	*Clean at least twice a day. *Disinfection once a day.	* It should be cleaned with water and chlorinated detergent and disinfected with 1/10 bleach. * Separate brushes should be used in animal examination rooms.

WALLS AND GLASSES .	*Cleaning at least once a month. * Routinely once a month, disinfect immediately when blood is contaminated with body waste,	*Must be wiped from ceiling to wall. * When the sick animal waste is contaminated, it should be disinfected with 1/10 bleach. * Glasses should be cleaned with detergent.
PLACES	* Twice a day, * More often if necessary,	*Dry sweeping is not suitable. *Wet cleaning method should be used. (Detergent soaked mops) *Disinfectant should not be added to the detergent. If there is any residue, blood, etc., it should be wiped with 1/10 bleach. *If electric wet vacuum cleaners are used, they should be disinfected with 1/100 bleach after daily cleaning. *If blood is spilled on the floor, it should first be soaked with a paper towel, 1/10 bleach should be poured and waited for ten minutes, then wiped with 1/100 solution and rinsed with clean water.
EXAMINATION ROOMS	* Twice a day * More often if necessary	* Cleaning with water and detergent is sufficient. * Afterwards the room should be ventilated.
DOORS	* At least once a week	* It should be wiped with a cleaning agent.
DOOR HANDLES	* Every day	* Should be wiped with a cleaning agent
SHELVES PATIENT EXAMINATION TABLES	*After each inspection *The examination table is changed after each patient animal change.	* It should be wiped with a cleaning agent.
ANIMAL OBSERVATION CAGE	*Every day	*It should be wiped with a cleaning agent.

5.11. CLEANING IN RISKY UNITS;

- Wet cleaning methods should be used in risky units,
- Cleaning should be done from the clean area (the area with the lowest microorganism density) to the dirty area (the area with the highest microorganism density),
- Cleaning cloths should be washed in the washing machine and dried after each use. In order for the cleaning cloths to be cleaned properly, 3-4 sets of spares should be kept for each examination table,
- , bleach is suitable for surface disinfection at a ratio of 1:10 . However, if there is blood and/or bloody material spilled on the ground, the ratio should be 1:10 dilution.
- Garbage bins should be washed and dried and appropriately colored bags should be used.
- Sinks should be cleaned daily with a chlorinated compound,
- The patient animal examination table and the materials around it should be cleaned daily. They should never be left wet, they should definitely be dried.
- The patient animal examination table must be cleaned again when changing patients during the day.
- In risky units, separate water should be prepared for each patient examination table. Water should be prepared immediately before starting cleaning and when cleaning is finished, buckets should be emptied immediately, washed with disinfectant solution and stored dry.
- Water should never be kept in mop carts, water should be prepared just before starting cleaning and buckets should be emptied immediately when cleaning is finished. At the end of the day, buckets should be washed with disinfectant solution and stored dry,
- In mop carts, disinfectant solution should be put in the blue bucket, and enough rinse water to be ½ detergent of the blue bucket should be put in the red bucket. After dipping the clean mop into the blue bucket, it should be squeezed into the red bucket. After wiping an area of 10-15 m^2 (depending on the dirtiness) with the mop , the mop should be rinsed in the red bucket and squeezed thoroughly. After dipping it into the disinfectant in the blue bucket and draining a little of the excess water, it should be squeezed into the red bucket and the process should be continued in this manner,
- The mopping process should be done in an S-shaped pattern, the mops should definitely be washed at the end of the day and stored dry, and should also be washed and dried after extensive blood or secretion cleaning, and the mops should be disinfected with hot water or 1% bleach or 1000 ppm chlorine (>30 minutes) after use, but the most appropriate mop cleaning method is to wash the mops in cotton bags in the washing machine.
- Dust should be removed from window sills daily, and window glass should be cleaned whenever it gets dirty.
- The door, door surrounds and doorknobs should be wiped every day.
- Used mops should be washed in the washing machine at the end of the day,
- Cleaning should be done without raising dust,
- If there is visible dirt and secretions on telephone handsets and computer keyboards, they should be cleaned with detergent water and dried. They should preferably be wiped daily with 70% alcohol.
- The walls of Risky Units should be cleaned once a month. Disinfection is not required unless there is contamination. The walls should not be left wet after cleaning.

5.12. CLEANING MATERIALS AND RULES ON THE USE OF MATERIALS:

- **Sink Brush:** Used to apply cleaning materials to sink surfaces. It is recommended to change it periodically in public sinks.
- **T Mop Attachment Device: It is the device used to apply** Orlon or damp mops to the floors.
- **Toilet Brush (For Toilet): Used for cleaning the inside of toilets and toilet bowls and left in the same area.** It is recommended to change it periodically in public toilets .
- **Handled Dustpan Broom:** Used for practical collection of small garbage on the floor.
- **Cleaning Gloves (Yellow-Blue-Red):** Used to protect hands during cleaning work and to prevent contact of chemicals with hands. Used only in designated areas according to color coding. The glove used is turned inside out to dry the moisture inside.
- **Glass Wiper:** Used for practical and quick cleaning of glass surfaces.
- **Dust Cloth (Yellow-Blue-Red):** Used when damp for cleaning tables, chairs, doors, windows, frames, etc. According to the color coding, only the specified color is used in that area.
- **T Mop Blue Mop Orlon:** Used to collect dust in areas with heavy pedestrian traffic without the need for a wet mop.
- **T Mop White Cotton Mop:** Used to remove excess water remaining on the floor after wet mopping and to clean dust and dirt on damp floors.
- **Carpet Washing Shampoo:** The solution prepared in the specified ratio is applied to carpets and seats in carpet washing machines. The cleaned surfaces should not be walked on before they dry.
- **Glass Cleaning Agent:** Used for cleaning glass and shiny surfaces. Applied to surfaces by spraying and dried with a clean, lint-free cloth.
- **General Purpose Surface Cleaner:** Used for cleaning floors, doors, windows and cabinets. The solution prepared in the recommended proportions on the product is applied to the surfaces with a cloth, mop, sponge etc.
- **Garbage Bag Red:** The garbage bag should say "Caution Medical Waste" and have a hazardous waste sign. It is used to collect hazardous medical waste. Collected bags should be kept away from the body while being carried and should never be reused.
- **Cream Bathroom and Sink Cleaner:** Used for cleaning bathrooms and sinks. The product is applied to the surfaces with a cloth sponge brush. Rinsed after application. Can be used on scratch-resistant surfaces.
- **Bleach:** It is used to clean and hygienic bathroom sinks, toilets and floors. The solution prepared in the ratios specified on the product is applied to the surfaces with a brush, cloth and sponge. After waiting for 3-5 minutes , it is rinsed with plenty of water. It should be used in well-ventilated areas. Comparison with products containing acid (lime, remover, hydrochloric acid) causes the formation of toxic gas.
- **Polishing Machine Pad White:** Used for polishing polymer-based floor polishes.
- **Z Folded Dispenser Towel:** Used to dry hands in public areas. It is hygienic as it is disposable.
- **Toilet Paper: It is a** disposable paper cleaning product used to prevent hand contact with the area to be cleaned.
- **Liquid Hand Soap:** Used for hand cleaning in public areas. Since it is used with a liquid soap dispenser, people only come into contact with the product they will use and thus hygiene is ensured. After wetting the hands, a sufficient amount of the product is taken and lathered to clean the hands and rinsed with plenty of water.
- **WC Cleaner:** Only used on acid-resistant surfaces. The product prepared in the specified ratio is applied to the surfaces with a brush, waited for a while and then rinsed with plenty of water. It should be used in well-ventilated areas. Mixing it with products containing chlorine (bleach) causes the formation of toxic gas, gloves should be used. Contact with skin should be avoided.
- **Squeegee :** It is used to direct the remaining water towards the drains after cleaning and rinsing.
- **WC Deodorizer Hanger: Used to prevent bad odors in** bathrooms and WCs . The product should be hung close to the ceiling by cutting 2cm*2cm from its packaging. Avoid contact with hands.

- **Polymer (Milk) Polish:** It is used for polishing floors. It is applied in sufficient quantity to well-cleaned surfaces, waited for it to dry and polished with a pad.
- **Mop Tassel (Wet Mop):** It is used for mopping surfaces. It is applied by drawing an eight on the floors.
- **Double Bucket Mop Cart:** It collects clean and dirty water thanks to its double bucket. Clean detergent water prepared in the blue bucket is applied to the floors with the help of a mop. The dirty mop is washed and squeezed in the dirty (red) water section.
- **Lime Remover: Used to clean lime residues accumulated** in bathroom sinks and WCs . The product used in sufficient quantity is applied to the surfaces with a sponge brush and rinsed with plenty of water. It should be used in well-ventilated areas. Mixing with products containing chlorine (bleach) causes the formation of toxic gas. Gloves must be used. Contact with skin should be avoided.

PREPARATION OF CLEANING SOLUTIONS

- The solution should be prepared in an appropriate proportion for the area to be cleaned.
- The duration of effect of the solution should be known well.
- The solution should be prepared immediately before the procedure and should not be kept for a long time.
- The color of the bucket and cloth should be determined according to the area to be cleaned.
- Cleaning materials should not be left in the bucket.
- The solution used should not be mixed with another solution.

PREPARATION OF BLEACH

- 1/100 bleach should be prepared as a surface disinfectant.
- 1/10 bleach should be prepared when cleaning surfaces that come into contact with blood and body fluids.

Preparer	Controlling	Approved by
HOSPITAL DIRECTOR	**CHIEF PHYSICIAN**	**DEAN**

ANNEX 2 Patient Admission and Workflow Plan

1. Patient Admission Stage

1. **Appointment and Preliminary Information**
    - During the appointment, patient owners are asked about the animal's health status and possible symptoms (fever, diarrhea, respiratory distress, skin lesions, etc.).
    - Situations with possible zoonotic risk (e.g. rabies, leptospirosis , brucella) are evaluated with priority.
    - For animals at risk of zoonosis, appointments are scheduled in a separate time slot.
2. **Entrance and Triage Area**
    - a separate **triage area for animals at the entrance to the hospital** .
    - Sick animals are classified according to their general health status and suspicion of infection:
        - **Emergency room**
        - **Area of Suspicion of Infection**
        - It is separated as **a Normal Examination Area .**
3. **Protective Equipment and Hygiene Protocols**
    - Appropriate personal protective equipment (gloves, mask, face shield, disposable apron) is provided for healthcare workers who will care for animals suspected of having zoonotic diseases.
    - Patient owners are also required to use hand sanitizer and wear a mask upon entry.

2. Inspection Stage

1. **Infection Suspicion Protocol**
    - Animals with suspected infection are evaluated in an isolated infectious disease examination room.
    - The equipment and rooms used are disinfected after each patient.
2. **Management of Zoonotic Disease Suspicion**
    - In the evaluation of zoonotic diseases, **Rabies is always the first condition to be evaluated. Whether the animal is owned or unowned, and its history of fighting, struggling or biting are questioned. In addition, the general examination of the animal is checked from a distance without contact with the animal for any wounds or hair loss on its body. In addition, the animal is evaluated for nervousness, paralysis of the extremities, salivation from the mouth, and eye orientation. For animals suspected of rabies, the Provincial/District Agriculture Directorate Veterinarian of the place where the animal came from is informed. Suspicious animals are not returned to their owners. They are transferred to the quarantine section in the Pet Shelter through the Veterinary Services Branch Directorate under the supervision of the Agriculture Directorate veterinarian.**
    - Biosecurity measures are applied when taking samples (blood, feces, urine, etc.) from animals suspected of other zoonotic diseases.
    - Samples are appropriately labeled and sent to the laboratory in accordance with biosafety protocols.
3. **Rapid Diagnosis and Isolation Decisions**
    - A preliminary diagnosis is attempted using rapid diagnostic methods (PCR, rapid test kits, etc.).

- Animals with confirmed infectious disease are directed to the appropriate isolation area.

3. Treatment and Monitoring Stage

1. **Planning Treatment Protocols**
   - An individual treatment plan is made, taking into account the condition of the sick animal and the risk of contamination.
   - Hygiene control of the area where the animal is located is ensured throughout the treatment process.
2. **Monitoring and Discharge Procedures**
   - Before discharge, necessary tests are performed to ensure that the animal does not carry any contagious diseases.
   - Discharged pet owners are informed about infectious diseases and points to watch out for possible symptoms.

4. Exit and Disinfection Process

1. **Disinfection of Areas**
   - All areas that the sick animal has contact with are disinfected in accordance with the protocols used. 5% bleach or surface disinfectants such as Virkon -S should be used for disinfection.
2. **Waste Management**
   - Samples taken from sick animals, contaminated materials and other biological wastes are disposed of in accordance with medical waste management protocols.
3. **Feedback and Improvement**
   - After each case, the team evaluates the process and corrects any deficiencies.

For this plan to be implemented effectively:

- Regular infection control training for staff,
- Regular inspection of biosafety procedures in the hospital,
- It must be ensured that all equipment and infrastructure comply with current standards.

Revisions to this plan may be made upon request.

Assessment and work management scheme for common infectious diseases

Suspected disease/condition	Affected Type(s)	Zoonotic Status	Way of transmission	Measures	transactions	Transport	Disinfection	Quarantine Conditions
Antibacterial resistant bacteria	All	Zoonosis	Biting, scratching, direct contact	Gloves, overshoe mask	Putting zoonosis labels on samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Restriction, quarantine room
Aspergillosis	All	Zoonosis	Respiratory tract, inhalation of conidia	Gloves, Mask, dishwashing All animal materials evaluated as infectious	Routine	Routine	5% bleach, Virkon S	Restriction, Normal Precautions
Acute upper respiratory tract infections in cats	Cat	Not zoonotic	Droplet infection , surface contact	Gloves, Mask, dishwashing All animal materials evaluated as infectious	Routine	Transport vehicle, carrying basket	5% bleach, Virkon S	Insulation
Bartonellosis	Cat and dog	Zoonosis	Flea-mediated transmission	Gloves, Mask, dishwashing All animal materials evaluated as infectious	Zoonotic label on laboratory samples	Routine	5% bleach, Virkon S	Restraint
Blastomycosis	All animals	Zoonosis	Soil, inhalation, bite, open wounds	Gloves, Mask, dishwashing All animal materials evaluated as infectious	Zoonotic label on laboratory samples	Routine	5% bleach, Virkon S	Normal cleaning procedure
Bordetella	Cat and dog	Zoonosis, Pregnant women and immunocompromised individuals	Through droplets, respiratory tract	Gloves, Apron	Zoonotic label on laboratory samples	On- cart Transport vehicle, carrying basket	5% bleach, Virkon S	Insulation
Borreliosis	Dog	Zoonosis	Transmission through ticks	Gloves, Apron	Zoonotic label on laboratory samples	Routine	5% bleach, Virkon S	Nope
Brucellosis	All animals	Zoonosis	Body secretions (Urine , semen, vaginal fluids)	Gloves, Apron, face mask	Contact log, Routine, Contact clinical supervisor, zoonotic label on laboratory samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Restriction, isolation if drainage paths are evident
Calici	Cat	Not zoonotic	Direct contact, via aerosol droplets	Gloves, apron, face mask, galoshes, bonnet	Routine	Transport vehicle, carrying basket	5% bleach, Virkon S	Insulation
Calici , High path .	Cat	Not zoonotic	Direct contact, via aerosol droplets	Gloves, apron, face mask, galoshes, bonnet	Routine	Remains are not transported for isolation	5% bleach, Virkon S	Insulation
Campylobacteriosis	Cat and dog	Zoonosis	Fecal -oral route, contaminated environmental surfaces	Gloves, apron, face mask, galoshes, bonnet	Putting zoonosis labels on samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Restraint
Canine Distemper	Dogs	Not zoonotic	Contact with contaminated environmental surfaces via aerosol droplets	Gloves, apron, face mask, galoshes, bonnet	Routine	Transport vehicle, carrying basket		Insulation

Canine Influenza	Dogs	Not zoonotic	Through aerosol droplets, contact with contaminated environmental surfaces, contaminated materials and equipment	Gloves, apron, face mask, galoshes, bonnet	Routine	No transport	5% bleach, Virkon S	Insulation
Chlamydia	Cats	Not zoonotic	Contact with contaminated environmental surfaces via aerosol droplets	Gloves, apron, face mask, galoshes, bonnet	Routine	Transport vehicle, carrying cart On-cart, of cage	5% bleach, Virkon S	Insulation
Coccidioidomycosis	All animals	Not zoonotic	Direct contact with infected fluids or clothing	Gloves, Mask, contaminated All animal materials should be evaluated as infectious .	Routine, Hospital epidemiology officer information	Routine	5% bleach, Virkon S	Restraint
Coronavirus Diarrhea	Dogs	Not zoonotic	Fecal -Oral	Gloves , Apron	Routine	In a cage on a transport vehicle	5% bleach, Virkon S	Insulation
Cryptosporidiosis	All	Zoonosis	Fecal -Oral	Gloves , apron, galoshes, bonnet	Putting zoonosis labels on samples	No transport	5% bleach, Virkon S	Insulation
Cryptococcosis	All animals	No	Respiratory tract, Inhalation of spores Respiratory , inhalation Ugh Spores	Gloves , Apron	Routine	Routine	5% bleach, Virkon S	Normal
Dermatophytosis	All animals	Zoonosis	Feathers, skin debris, fomites , litter	Gloves , apron, galoshes, bonnet	Contact log, Routine, Contact clinical supervisor, zoonotic label on laboratory samples	Transport vehicle, carrying basket		Insulation
Ehrlichiosis	Dogs	Zoonosis	Ticks	Routine	Contact log, Routine, Contact clinical supervisor, zoonotic label on laboratory samples	Routine	5% bleach, Virkon S	Normal
Feline ImmuNodeficiency virus	Cats	Not zoonotic	Body Secretions, saliva , bite	Routine	Routine	Routine	5% bleach, Virkon S	Normal
Feline leukemia virus	Cats	Not zoonotic	Body Secretions, direct contact	Routine	Routine	Routine	5% bleach, Virkon S	Normal
Feline Panleukopenia	Cats	Not zoonotic	Fecal -Oral	Gloves, Apron	Infectious disease	Transport vehicle, carrying basket	5% bleach, Virkon S	Insulation
Giardiasis	All animals	Zoonosis	Fecal -Oral	Gloves, Apron	Contact log, Routine, Contact clinical supervisor, zoonotic label on laboratory samples	Routine	5% bleach, Virkon S	Restraint
Histoplasmosis	All animals	Not zoonotic	Respiratory tract, Inhalation of spores	Routine	Routine	Routine	5% bleach, Virkon S	Insulation
Herpesvirus infections	Cats	Not zoonotic	Direct contact , respiratory droplet	Gloves, Apron	Routine	Transport vehicle, carrying basket	5% bleach, Virkon S	Insulation
Infectious Canine	Dogs	Not zoonotic	Body Secretions, contaminated surfaces	Gloves, apron, galoshes, bonnet	Evaluation of contaminated materials as infectious	Transport vehicle,	5% bleach, Virkon S	Insulation

hepatitis						carrying basket		
Infectious Canine tracheobronchitis	Dogs	Not zoonotic	Aerosol, contaminated surfaces	Gloves, apron, galoshes, bonnet	Evaluation of contaminated materials as infectious	Normal	5% bleach, Virkon S	Insulation
Leptospirosis	All animals	Zoonosis	Body Secretions, urine, blood	Gloves, Apron, galoshes, bonnet, Face mask	Contact log, Routine, Contact clinical supervisor, zoonotic label on laboratory samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Quarantine
Mycobacterium	All animals	Zoonosis	Direct contact, aerosol droplet infection	Gloves, apron, galoshes, bonnet	Contact log, Routine, Contact clinical supervisor, zoonotic label on laboratory samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Insulation
Mycoplasma	All animals	Not zoonotic	Respiratory tract	Gloves , apron, galoshes, bonnet	Routine	Routine	5% bleach, Virkon S	Normal
Parvovirus enteritis	Dogs	Not zoonotic	Fecal -oral route, environmental surfaces	Gloves , apron, galoshes, bonnet	Routine	Transport vehicle, carrying basket	5% bleach, Virkon S	Insulation
Rabies	All mammals	Zoonosis	Biting, scratching	Gloves, mask, face mask, overshoes, bonnet	Contact registration, routine examination, informing the clinic manager, labeling laboratory samples	Transfer to municipal shelter quarantine center	5% bleach, Virkon S	Quarantine, Isolation,
Rocky Mountain Spotted Fever	Dogs	Zoonosis	Ticks	Gloves, apron, galoshes, bonnet	Labeling laboratory samples	Routine	5% bleach, Virkon S	Restraint
Rotavirus	Dogs	Not zoonotic	Fecal -oral route, environmental surfaces	Gloves, apron, galoshes, bonnet	Routine	On- cart	5% bleach, Virkon S	Insulation
Salmonellosis	All animals	Zoonosis	Fecal -oral route, environmental surfaces	Gloves, apron, galoshes, bonnet	Contact registration, routine examination, informing the clinic manager, labeling laboratory samples	No transport	5% bleach, Virkon S	Insulation
Sarcoptic Mange	Dogs	Zoonosis	Skin, hair. Dishwashing equipment	Gloves, apron, galoshes, bonnet	Contact registration, routine examination, informing the clinic manager, labeling laboratory samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Restraint
Sporotrichosis	Cats	Zoonosis	Skin route, inoculation of infected exudates , scratching	Gloves, apron, galoshes, bonnet	Contact registration, routine examination, informing the clinic manager, labeling laboratory samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Restraint
Toxoplasmosis	Cats	Zoonosis, Pregnant women and immunocom promised individuals	Fecal Oral	Gloves, apron, galoshes, bonnet	Putting zoonosis labels on samples	Transport vehicle, carrying basket	5% bleach, Virkon S	Restraint
Transmissible venereal tumor	Dogs	Not zoonotic	Direct contact, urine	Gloves, apron, galoshes, bonnet	Routine	Routine	5% bleach, Virkon S	Normal