International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

COMMON INFECTIOUS DISEASES AND PREVENTIVE HEALTHCARE IN COMPANION ANIMALS

Rania Zara
BS Clinical Psychology, (CCP), Center for Clinical Psychology, University of the Punjab, Lahore, Pakistan

ABSTRACT

Infectious diseases are among the major health challenges affecting domestic companion animals, particularly dogs and cats. These diseases are caused by different pathogenic microorganisms, including viruses, bacteria, fungi, and parasites, which can affect multiple body systems and negatively influence animal health, development, and quality of life. Common infectious diseases in companion animals include canine parvovirus, canine distemper, rabies, feline panleukopenia, feline immunodeficiency virus, feline leukemia virus, respiratory infections, bacterial skin infections, and gastrointestinal parasitic diseases. The transmission of these infections may occur through direct animal contact, contaminated food and water, infected bodily secretions, environmental exposure, and vectors. Inadequate vaccination, poor sanitation, overcrowding, insufficient veterinary attention, and delayed diagnosis may increase the risk of disease transmission. Preventive healthcare is therefore essential for reducing infection rates and improving the overall health and welfare of companion animals. This study examines common infectious diseases affecting domestic dogs and cats and evaluates preventive healthcare strategies, including vaccination, routine veterinary examinations, parasite control, hygiene practices, proper nutrition, and responsible animal management. It also highlights the importance of early disease detection, accurate diagnosis, appropriate treatment, and public awareness in controlling infectious diseases. Particular attention is given to zoonotic infections that may be transmitted between animals and humans. The study emphasizes that an integrated preventive healthcare approach involving pet owners, veterinary professionals, and animal welfare organizations can significantly reduce disease risks, improve animal survival, and contribute to public health protection.

KEYWORDS:*Companion animals, infectious diseases, preventive healthcare, veterinary medicine, dogs, cats, vaccination, disease prevention, zoonotic diseases, bacterial infections, viral infections, parasitic diseases, veterinary diagnosis, parasite control, animal hygiene, animal welfare, and public health.*

INTRODUCTION

Companion animals, particularly dogs and cats, play an important role in human society by providing companionship, emotional support, and social benefits. However, maintaining their health requires continuous attention to disease prevention, proper nutrition, environmental hygiene, and regular veterinary care. Infectious diseases represent a significant challenge in companion animal healthcare because they can spread rapidly among animals and, in certain cases, may also pose risks to human health. These diseases are caused by different microorganisms, including viruses, bacteria, fungi, and parasites. Their effects range from mild clinical symptoms to severe systemic illness and death, depending on the infectious organism, the animal's immune status, age, vaccination history, and environmental conditions. Therefore, understanding common infectious diseases and their prevention is essential for protecting domestic companion animals.Viral infections are among the most serious health concerns in dogs and cats. Akhtar, N., Mishra, R., Tripathi, S., Redon-Marin, S., Narsing Rao, M. P., Cuspoca Orduz, A. F., ... & Chawla, M. (2025). found thatCanine parvovirus is a highly contagious viral disease that primarily affects the gastrointestinal system and may cause severe vomiting, diarrhea, dehydration, and life-threatening complications, particularly in young puppies. Canine distemper is another serious disease that can affect respiratory, gastrointestinal, and nervous systems. Rabies is a particularly important zoonotic viral disease because it can be transmitted to humans through the bite of

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

an infected animal and is almost invariably fatal once clinical symptoms develop. In cats, feline panleukopenia, feline leukemia virus, and feline immunodeficiency virus are important infectious conditions that require appropriate preventive measures, veterinary diagnosis, and management.

These diseases demonstrate the importance of vaccination, early detection, and responsible animal healthcare.Bacterial and parasitic infections also contribute significantly to companion animal health problems. Bacterial diseases may affect the respiratory system, skin, urinary tract, gastrointestinal system, and other organs. Certain infections can develop following injuries, exposure to contaminated environments, or contact with infected animals. Parasitic diseases are also common and may involve internal parasites, such as roundworms, hookworms, and tapeworms, as well as external parasites, including fleas, ticks, and mites. These parasites can cause irritation, anemia, digestive problems, skin disorders, and, in some cases, transmit additional infectious organisms. Regular parasite prevention, appropriate diagnostic testing, environmental sanitation, and veterinary treatment are important strategies for reducing these health risks.The transmission of infectious diseases is influenced by several environmental, biological, and management-related factors. Edge-to, U. M. V. T. (2025). Explained thatDirect contact with infected animals, contaminated food and water, exposure to infectious secretions, poor sanitation, and inadequate housing conditions can contribute to disease spread. Overcrowded shelters, breeding facilities, and areas containing large populations of unvaccinated animals may provide favorable conditions for the transmission of infectious organisms. Young animals, senior pets, pregnant animals, and individuals with weakened immune systems may be particularly vulnerable to infections. Furthermore, international animal movement, wildlife contact, and changing environmental conditions can influence the distribution and emergence of certain infectious diseases. Understanding these risk factors is necessary for developing effective preventive healthcare programs.Preventive healthcare plays a central role in reducing the incidence and severity of infectious diseases in companion animals.

Vaccination is one of the most effective methods for protecting dogs and cats against several important viral and bacterial infections. Core vaccines protect against diseases that are considered significant threats to animal health, while non-core vaccines are recommended according to geographical location, lifestyle, exposure risks, and individual circumstances. Regular veterinary examinations help identify early clinical signs, evaluate vaccination status, monitor body condition, and detect potential health problems. Parasite prevention, routine deworming when indicated, appropriate grooming, clean drinking water, proper waste disposal, and hygienic living environments further contribute to reducing infection risks.Another important aspect of preventive healthcare is the relationship between companion animal health and public health. Certain infectious diseases, including rabies, leptospirosis, dermatophytosis, and some intestinal parasitic infections, can be transmitted between animals and humans. These zoonotic diseases are particularly concerning for children, older adults, and individuals with weakened immune systems. Responsible pet ownership, vaccination, hand hygiene, environmental sanitation, and appropriate veterinary supervision can reduce the possibility of transmission. Dantas-Torres, F., & Otranto, D. (2026). Explains thatThe One Health approach recognizes the interconnectedness of human, animal, and environmental health and provides an important framework for addressing infectious disease risks across different populations.The present study examines common infectious diseases affecting domestic companion animals and explores the importance of

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

preventive healthcare in reducing their occurrence and transmission. It focuses on major viral, bacterial, fungal, and parasitic infections, their transmission routes, clinical significance, and associated risk factors. The study also investigates preventive strategies, including vaccination, routine veterinary examinations, parasite control, sanitation, early diagnosis, and owner education. By reviewing these areas, the research aims to emphasize the importance of comprehensive preventive healthcare in improving animal welfare, reducing infectious disease burdens, and protecting public health.

RESEARCH OBJECTIVE

1. To examine common infectious diseases affecting domestic companion animals and evaluate the effectiveness of preventive healthcare practices in reducing infection risks and improving animal health.

RESEARCH QUESTION

1. How do preventive healthcare practices influence the occurrence, transmission, and management of common infectious diseases in domestic companion animals?

LITERATURE REVIEW

Infectious diseases represent a major challenge in veterinary medicine because they can affect the health, survival, and welfare of domestic companion animals. Dogs and cats are exposed to different infectious agents through direct contact with infected animals, contaminated environments, food, water, bodily secretions, and disease-carrying vectors. These infections may be caused by viruses, bacteria, fungi, protozoa, and parasitic organisms. Their clinical effects vary according to the type of pathogen, the immune status of the animal, age, nutritional condition, and environmental circumstances. Dhaka, P., Vijay, D., Makovska, I., Yadav, J. P., Bedi, J. S., Gill, J. P. S., & Dewulf, J. (2026). revealed thatYoung animals are particularly vulnerable because their immune systems are still developing, while older animals and pets with underlying medical conditions may experience more severe complications. Recent veterinary literature emphasizes that infectious diseases should be addressed through integrated prevention, accurate diagnosis, and appropriate treatment. Kanwar et al. (2026) reviewed emerging and re-emerging infectious diseases in dogs, highlighting the importance of understanding transmission patterns, clinical manifestations, and zoonotic risks. Their work demonstrates that effective disease control requires cooperation between veterinary professionals, animal owners, and public health authorities. Viral infections are among the most important causes of illness in domestic dogs. Canine parvovirus is a highly contagious infection that primarily affects the gastrointestinal system and is particularly dangerous for puppies and unvaccinated dogs. Common clinical manifestations include vomiting, severe diarrhea, dehydration, weakness, and loss of appetite.

In severe cases, intestinal damage and secondary complications can lead to death. Canine distemper is another serious viral disease that may affect the respiratory, gastrointestinal, and nervous systems. Infected dogs may develop fever, coughing, nasal discharge, vomiting, diarrhea, muscle twitching, and neurological abnormalities. Rabies is another major viral disease because it affects the central nervous system and can be transmitted to humans through bites or scratches from infected animals. Mazzaferro (2025) reviewed canine

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

parvoviral enteritis and emphasized the importance of vaccination, early diagnosis, and supportive veterinary treatment. Zersen (2026) further discussed the clinical management of canine parvovirus and identified vaccination as the most important preventive measure. These studies highlight the need for appropriate immunization schedules and rapid veterinary intervention when infection is suspected. Domestic cats are susceptible to several important viral infections that can cause serious health complications. Feline panleukopenia is a highly contagious viral disease that particularly affects kittens and unvaccinated cats. It may cause fever, vomiting, diarrhea, severe dehydration, weakness, and a reduction in white blood cell counts. Feline leukemia virus (FeLV) and feline immunodeficiency virus (FIV) are also significant infectious diseases because they can weaken the immune system and increase susceptibility to secondary infections. FeLV may contribute to anemia, lymphoma, and other serious disorders, while FIV can gradually impair immune functioning. Feline herpesvirus and feline calicivirus are important causes of upper respiratory infections, producing symptoms such as sneezing, nasal discharge, eye inflammation, fever, and oral lesions.

Westman et al. (2025) examined FeLV infection and discussed its diagnosis, prevention, and management in domestic cats. Akhtar et al. (2025) reviewed FIV pathogenesis, clinical effects, transmission, and developments in treatment and vaccine research. These studies demonstrate that feline infectious diseases require appropriate testing, vaccination where indicated, exposure management, and regular veterinary monitoring. Heydari, P., Tirbandpay, M., & Ghasemishayan, R. (2025). Elaborated onBacterial infections can affect different body systems in companion animals and may result in localized or systemic disease. Common bacterial conditions include leptospirosis, bacterial skin infections, respiratory infections, urinary tract infections, and gastrointestinal infections. Leptospirosis is particularly important because it is a zoonotic bacterial disease that can affect both animals and humans. Dogs may become infected through exposure to water, soil, or environments contaminated with the urine of infected animals. Clinical signs may include fever, vomiting, weakness, reduced appetite, kidney abnormalities, and liver complications. Other bacterial infections may develop following wounds, bites, surgical procedures, or exposure to contaminated surroundings. Heydari et al. (2025) examined the environmental and host-related risk factors associated with canine leptospirosis and discussed its zoonotic significance. Their systematic review highlights the influence of environmental conditions, animal exposure, and geographical differences on disease occurrence. Appropriate vaccination where recommended, rodent control, environmental hygiene, and veterinary assessment are important preventive measures. Furthermore, responsible antimicrobial use is essential because unnecessary antibiotic administration can contribute to antimicrobial resistance.

Parasitic and vector-borne infections are important causes of disease in domestic dogs and cats. Internal parasites, including roundworms, hookworms, whipworms, and tapeworms, may affect the gastrointestinal system and cause diarrhea, weight loss, poor growth, anemia, and nutritional problems. External parasites, such as fleas, ticks, and mites, can cause skin irritation, allergic reactions, hair loss, and secondary infections. Some ticks and other arthropods also transmit infectious microorganisms that may produce systemic diseases. Vector-borne infections are influenced by climate, environmental conditions, geographical distribution, animal movement, and exposure to infected vectors. Dantas-Torres and Otranto (2026) reviewed canine vector-borne diseases and emphasized the need for updated preventive strategies in veterinary practice. The 2025 collection on vector-borne and zoonotic diseases in dogs and cats also highlights the relationship between companion animal health,

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

environmental changes, and public health. These findings support the importance of regular parasite examinations, veterinarian-recommended preventive products, environmental control, and owner education. Fungal infections are another important category of infectious diseases affecting domestic companion animals. Dermatophytosis, commonly known as ringworm, is one of the most recognized fungal infections in dogs and cats. It affects the skin, hair, and nails and may produce circular areas of hair loss, scaling, redness, and skin irritation. Cats, particularly young animals and those living in overcrowded environments, may carry and transmit fungal organisms. Dermatophytosis is also zoonotic and can spread from infected animals to humans through direct contact or contaminated objects. Other fungal infections may affect the respiratory system, internal organs, or other body tissues, depending on the organism and geographical environment.

Diagnosis may involve physical examination, fungal culture, microscopic evaluation, and other laboratory techniques. Preventive healthcare requires regular grooming, cleaning of bedding, disinfection of contaminated surfaces, isolation of affected animals when appropriate, and veterinary treatment. The broader literature on zoonotic diseases in companion animals identifies dermatophytosis as an important infection-control concern in veterinary environments. Therefore, fungal disease prevention should be incorporated into routine hygiene and biosecurity practices. Zoonotic diseases are infections that can naturally spread between animals and humans. Domestic dogs and cats may carry several zoonotic pathogens, making preventive healthcare important for both veterinary and human medicine. Rabies, leptospirosis, toxoplasmosis, dermatophytosis, and certain intestinal parasitic infections are examples of diseases that have public health significance. Transmission may occur through animal bites, scratches, contaminated soil, infected urine, fecal material, direct skin contact, or vectors. Rabies is particularly serious because it is almost invariably fatal after the appearance of clinical symptoms, although timely post-exposure prophylaxis can prevent human disease. The World Health Organization (2026) emphasizes that dog vaccination, bite prevention, and timely medical intervention are essential components of rabies control. The 2025 review of vector-borne and zoonotic diseases in dogs and cats also demonstrates the importance of understanding infectious disease transmission through a One Health perspective. These findings indicate that animal vaccination, responsible pet ownership, hand hygiene, safe waste disposal, and public awareness are necessary for protecting both animal and human populations. Vaccination is one of the most effective preventive healthcare interventions for reducing the occurrence and severity of infectious diseases in companion animals. Vaccines stimulate the immune system to recognize specific infectious agents and develop protective immune responses. Core vaccinations are recommended for all dogs and cats, subject to veterinary assessment and regional recommendations, because they protect against important diseases with significant health consequences. Non-core vaccines are selected according to lifestyle, geographical location, exposure risks, and individual health conditions. Puppies and kittens require carefully planned vaccination schedules because maternal antibodies may interfere with the development of active immunity.

Adult animals may also require booster vaccinations according to the vaccine type and veterinary guidelines. Stickney and Cave (2025) explain that vaccination has contributed substantially to controlling diseases such as canine parvovirus, canine distemper, canine infectious hepatitis, and feline panleukopenia. The 2025 small-animal vaccination guidelines published by StIKo Vet also emphasize the importance of basic immunization and

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

appropriate vaccination planning. Therefore, vaccination programs should be individualized and regularly reviewed by veterinary professionals. Veterinary hygiene and infection control are essential for preventing the spread of infectious diseases in households, animal shelters, grooming facilities, and veterinary clinics. Pathogens may spread through contaminated examination tables, medical instruments, food containers, bedding, floors, clothing, and human hands. Inadequate cleaning and disinfection procedures can increase the possibility of cross-infection, particularly in environments where large numbers of animals are treated or housed together. Effective infection-control programs include hand hygiene, proper cleaning and disinfection, isolation of infectious patients, protective clothing, appropriate waste management, and safe handling of biological materials. Dhaka et al. (2026) examined veterinary clinical biosecurity and described practical approaches for preventing healthcare-associated infections. Their review highlights the importance of bio-exclusion, bio-containment, procedural hygiene, and regular evaluation of infection-control practices. Similarly, research published in Preventive Veterinary Medicine in 2025 demonstrates the value of structured infection-prevention programs and quantitative assessment in small-animal veterinary facilities. These studies indicate that effective hygiene and biosecurity practices are necessary for protecting animals, veterinary staff, and pet owners.

METHODOLOGY

The present study adopts a descriptive and literature-based methodology to examine common infectious diseases affecting domestic companion animals and evaluate the importance of preventive healthcare practices. The research primarily focuses on domestic dogs and cats because they are among the most common companion animals and are affected by a wide range of viral, bacterial, fungal, and parasitic infections. Relevant scientific literature, veterinary research articles, clinical guidelines, public health publications, and recent reviews published during 2025 and 2026 are considered for the investigation. Particular attention is given to infectious diseases such as canine parvovirus, canine distemper, rabies, feline panleukopenia, feline leukemia virus, feline immunodeficiency virus, leptospirosis, dermatophytosis, and vector-borne infections. The study also examines the transmission routes, clinical effects, risk factors, and preventive approaches associated with these diseases.Secondary data are collected from scientific journals, veterinary publications, recognized animal health organizations, and relevant research databases. The selected literature is examined to identify important information concerning vaccination, early disease diagnosis, parasite prevention, environmental sanitation, veterinary hygiene, and responsible pet ownership. Particular emphasis is placed on preventive healthcare measures that can reduce disease transmission and improve animal welfare. The research also considers zoonotic infections and their implications for human health. Scientific information is compared across different sources to identify common findings, emerging concerns, and differences in disease-prevention recommendations.The collected information is organized into major research themes and analyzed through qualitative interpretation. The analysis focuses on the relationship between preventive healthcare and infectious disease control in companion animals. Particular attention is given to the importance of vaccination coverage, routine veterinary examinations, early detection, appropriate treatment, and infection-control practices. The methodology provides a scientific foundation for understanding existing preventive healthcare strategies and identifying areas that require further veterinary research. Since the study is based on secondary literature, it does not involve direct animal experimentation, clinical trials, or primary surveys.

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

RESEARCH DESIGN

The study employs a descriptive qualitative research design to investigate common infectious diseases and preventive healthcare in domestic companion animals. This design is suitable because the research aims to understand existing scientific evidence, disease patterns, transmission mechanisms, and preventive interventions rather than experimentally testing a particular treatment or vaccine. The study focuses on dogs and cats and considers the major infectious disease categories, including viral, bacterial, fungal, and parasitic infections. It examines how biological, environmental, and management-related factors influence disease occurrence and transmission. The research also considers the importance of preventive healthcare in reducing infectious disease risks.A thematic research approach is used to classify the collected information into different areas of investigation. These include common infectious diseases, disease transmission, zoonotic risks, vaccination, veterinary hygiene, parasite control, early diagnosis, and responsible pet ownership. Each theme is examined through recent scientific publications and veterinary recommendations. Comparative analysis is used to identify differences between infectious diseases affecting dogs and cats and to evaluate the preventive strategies recommended for different pathogens. This approach provides a structured understanding of the relationship between infectious disease prevention and companion animal health.The research design also incorporates an interpretive approach to examine the importance of veterinary healthcare practices in disease control. Findings from different scientific sources are compared to identify common recommendations, emerging infectious threats, and existing research limitations. The study recognizes that the effectiveness of preventive interventions may vary according to geographical conditions, animal populations, vaccination status, and access to veterinary services. Since the research relies on secondary information, no primary clinical observations or experimental results are claimed. The design therefore provides a comprehensive overview of infectious disease prevention and its contribution to animal welfare and public health.

DATA ANALYSIS

The data analysis is based on a thematic examination of published scientific literature concerning infectious diseases and preventive healthcare in domestic companion animals. The collected information is classified into major categories, including viral infections, bacterial diseases, fungal infections, parasitic diseases, zoonotic infections, vaccination, and veterinary hygiene. The reviewed literature indicates that infectious diseases remain an important challenge in companion animal healthcare because different pathogens can spread through direct contact, contaminated environments, bodily secretions, and disease-carrying vectors. The analysis further identifies age, immune status, vaccination history, environmental conditions, and animal management practices as important factors influencing disease occurrence and severity. Young puppies and kittens are particularly vulnerable to several infectious diseases, emphasizing the importance of early veterinary assessment and preventive healthcare.A major area of analysis concerns vaccination and its contribution to infectious disease prevention. The reviewed studies demonstrate that vaccination is an important strategy for reducing the occurrence and severity of several serious viral diseases, including canine parvovirus, canine distemper, and feline panleukopenia. However, vaccination requirements differ according to animal species, age, geographical location, lifestyle, and exposure risks. The analysis also identifies the importance of regular veterinary examinations, diagnostic testing, parasite prevention, and environmental sanitation. Studies

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

concerning feline leukemia virus and feline immunodeficiency virus further demonstrate that reducing exposure to infected animals and implementing appropriate testing procedures are important components of feline healthcare. These findings suggest that vaccination should be combined with other preventive interventions rather than considered an independent solution.The analysis also highlights the relationship between companion animal infectious diseases and public health. Zoonotic infections such as rabies, leptospirosis, toxoplasmosis, and dermatophytosis demonstrate the importance of maintaining proper hygiene and responsible animal management. Veterinary clinic biosecurity, appropriate disinfection, isolation of infected animals, and safe handling procedures can reduce the possibility of disease transmission. Furthermore, the increasing importance of vector-borne infections indicates that environmental monitoring and parasite control should be included in preventive healthcare programs.

FINDINGS

The findings of this study indicate that infectious diseases represent a significant health concern for domestic companion animals, particularly dogs and cats. Viral, bacterial, fungal, and parasitic infections can affect different body systems and produce a wide range of clinical complications. Canine parvovirus, canine distemper, feline panleukopenia, feline leukemia virus, feline immunodeficiency virus, leptospirosis, and dermatophytosis are among the important diseases requiring appropriate preventive attention. The reviewed literature indicates that disease severity and transmission are influenced by several factors, including animal age, immune condition, vaccination history, environmental exposure, and living conditions. Young and unvaccinated animals are particularly vulnerable to certain highly contagious infections.Another important finding is that preventive healthcare plays a major role in reducing infectious disease risks. Vaccination is identified as one of the most effective approaches for protecting companion animals against several serious infectious diseases. Regular veterinary examinations, appropriate diagnostic testing, parasite prevention, proper sanitation, and responsible animal management further contribute to disease control. The reviewed literature also demonstrates that early diagnosis and timely treatment can reduce the possibility of severe complications and improve animal health outcomes. In addition, appropriate isolation procedures and veterinary clinic biosecurity are important for preventing the transmission of infections between animals.The study further finds that infectious diseases affecting companion animals may have important public health implications, particularly when zoonotic pathogens are involved. Rabies, leptospirosis, toxoplasmosis, and certain fungal and parasitic infections demonstrate the connection between animal and human health. Pet owner education, vaccination, hand hygiene, safe waste disposal, and responsible animal handling are therefore essential preventive measures. The findings also suggest that environmental changes and vector activity may influence the occurrence of certain infectious diseases.

CONCLUSION

Infectious diseases remain an important challenge in maintaining the health and welfare of domestic companion animals. This study examines common viral, bacterial, fungal, and parasitic infections affecting dogs and cats and highlights their clinical significance, transmission routes, and associated risk factors. Diseases such as canine parvovirus, canine distemper, rabies, feline panleukopenia, feline leukemia virus, feline immunodeficiency

International Journal of
Companion Animal Health and Research
VOL 01 | No. 1 | 2026
P-ISSN: XXXX-XXXX | E-ISSN: XXXX-XXXX

virus, leptospirosis, and dermatophytosis demonstrate the wide range of infectious threats affecting companion animals. These diseases may cause serious health complications, reduce quality of life, and, in severe cases, result in death. Therefore, understanding their causes, transmission mechanisms, and preventive requirements is essential for improving veterinary healthcare practices.The study concludes that preventive healthcare is one of the most important approaches to controlling infectious diseases in companion animals. Vaccination, regular veterinary examinations, parasite prevention, proper sanitation, early diagnosis, and appropriate treatment contribute significantly to reducing infection risks. Veterinary professionals play an essential role in developing vaccination schedules, identifying disease symptoms, recommending diagnostic procedures, and educating pet owners about responsible healthcare practices. Maintaining hygienic environments, reducing unnecessary contact with infected animals, and implementing appropriate biosecurity measures are also important for limiting the spread of infectious organisms. These preventive interventions should be selected according to animal species, age, geographical location, lifestyle, and individual health requirements.In conclusion, controlling infectious diseases requires continuous cooperation between pet owners, veterinary professionals, animal welfare organizations, and public health authorities.

REFERENCES

Akhtar, N., Mishra, R., Tripathi, S., Redon-Marin, S., Narsing Rao, M. P., Cuspoca Orduz, A. F., ... & Chawla, M. (2025). Feline immunodeficiency virus: current insights into pathogenesis, clinical impact, and advances in treatment and vaccine development. Frontiers in Veterinary Science, 12, 1665999.

Edge-to, U. M. V. T. (2025). 2025 ACVIM Forum Research Report Program.

Dantas-Torres, F., & Otranto, D. (2026). Canine vector-borne diseases: a changing world demands a new preventive strategy from veterinarians. Parasites & Vectors, 19(1), 160.

Dhaka, P., Vijay, D., Makovska, I., Yadav, J. P., Bedi, J. S., Gill, J. P. S., & Dewulf, J. (2026). From risk to resilience: A narrative review on strengthening veterinary clinical biosecurity to prevent healthcare-associated infections. The Veterinary Journal, 317, 106684.

Heydari, P., Tirbandpay, M., & Ghasemishayan, R. (2025). Systematic review of the prevalence of environmental and host-related risk factors and the zoonotic potential of leptospirosis in domestic dogs in regions impacted by environmental changes. BMC veterinary research, 21(1), 564.