



A Monthly e Magazine
ISSN:2583-2212

Popular Article

July, 2023; 3(07), 1677-1679

Salmonellosis in Animals: A Review

Manoj Kumar Kalwaniya*¹, Manisha Doot², Bhanu Prakash Dang³, Lokendra⁴

^{*1,2} Ph.D. Scholar, Department of Veterinary Public Health and Epidemiology, College of Veterinary and Animal Science, RAJUVAS, Bikaner (Raj.)

³ Ph.D. Scholar, Department of Veterinary Gynaecology and Obstetrics, College of Veterinary and Animal Science, RAJUVAS, Bikaner (Raj.)

⁴ M.V.Sc. Scholar, Department of Veterinary and Animal Husbandry Extension, College of Veterinary Science and A.H., Kamdhenu University, Junagadh (Gujarat)

<https://doi.org/10.5281/zenodo.8192735>

Introduction

Salmonellosis is a common infectious disease caused by bacteria of the genus *Salmonella*. It affects a wide range of animals, including mammals, birds, reptiles, and amphibians. The disease poses significant health and economic concerns in both domestic and wild animal populations. *Salmonella* bacteria are zoonotic, meaning they can be transmitted from animals to humans, making it a public health issue as well.

Etiology of Salmonellosis in Animals:

Salmonella bacteria are Gram-negative, rod-shaped, facultative anaerobes. The most common species responsible for salmonellosis in animals include *Salmonella enterica* subsp. *enterica*, *Salmonella* Typhimurium, *Salmonella* Choleraesuis, and others. These bacteria primarily inhabit the gastrointestinal tract of infected animals and are shed in their faeces, leading to the contamination of the environment and potential transmission to other susceptible individuals.

Transmission of Salmonellosis:

The main route of transmission for salmonellosis in animals is through the ingestion of contaminated food, water, or contact with infected faeces. In farm settings, the disease can spread rapidly through contaminated feed, water sources, or by direct contact between infected and susceptible animals. Wild animals can also serve as reservoirs, contributing to the spread of the



disease to domesticated animals.

Clinical Signs of Salmonellosis in Animals:

The clinical signs of salmonellosis in animals can vary depending on the species affected and the severity of the infection. Common clinical signs include:

- ❖ Diarrhoea (often bloody)
- ❖ Vomiting
- ❖ Fever
- ❖ Abdominal pain and discomfort
- ❖ Anorexia (loss of appetite)
- ❖ Dehydration
- ❖ Lethargy and weakness
- ❖ Weight loss
- ❖ Abortions (in pregnant animals)

Diagnosis of Salmonellosis

The diagnosis of salmonellosis in animals involves a combination of clinical signs, history of exposure, and laboratory tests. Veterinarians may perform the following diagnostic procedures:

- ✓ Faecal culture: Isolating and identifying the *Salmonella* bacteria from faecal samples.
- ✓ Blood tests: Detecting antibodies or other indicators of infection.
- ✓ PCR (Polymerase Chain Reaction) testing: A molecular method to detect the presence of *Salmonella* DNA in clinical samples.

Treatment of Salmonellosis in Animals

Treatment of salmonellosis in animals often involves supportive care to manage symptoms and antibiotics to control the bacterial infection. However, antibiotic resistance is a growing concern, so appropriate antimicrobial susceptibility testing should guide the choice of antibiotics. Fluid therapy may be necessary to address dehydration caused by diarrhoea and vomiting.

Prevention and Control of Salmonellosis in Animals

Prevention and control of salmonellosis in animals are essential to minimize its impact on animal health and public health. Some preventive measures include:

- Biosecurity: Implementing strict biosecurity measures to prevent the introduction and spread of *Salmonella* on farms and in animal facilities.
- Sanitation: Ensuring proper sanitation of animal housing, equipment, and feed storage areas to reduce bacterial contamination.



- Quarantine: Isolating new or sick animals to prevent the spread of infection.
- Vaccination: In some cases, vaccines may be available to protect animals from specific Salmonella serotypes.
- Surveillance: Regular monitoring of animals for signs of infection and conducting laboratory tests to detect Salmonella.

It's important to note that salmonellosis is a reportable disease in many countries, meaning that veterinarians and animal health authorities are required to notify relevant authorities when cases are identified. This allows for prompt investigation and control measures to prevent further spread.

