

Salmonellosis

Definition

Contagious bacterial infection caused by *Salmonella* spp. which has >2500 serotypes.

Clinical signs

Diarrhea (soft feces to projectile, watery diarrhea)
Lethargy
Colic
Fever (patient may have normal temperature, especially if treated with NSAIDs)
Localized infection i.e. joint or bone
Endotoxemia

Incubation

12+ hours (interval variation due to amount and virulence of organism ingested, immunocompetence, and other variables)

Transmission

Ingestion of contaminated material or feces; inhalation *is* possible
Fomites are significant method of indirect transmission of these bacteria

Diagnostic Testing

Fecal culture—request *Salmonella* specific with serotyping and antibiotic susceptibility testing of isolated organism.
An individual case should be sampled 3-5 times.
If several animals are affected, submit samples from as many animals as possible.

Shedding Time of Organism Past Resolution of Clinical Signs

Highly variable, from several days to extended periods (30+ days)

Chronic shedding is uncommon but can occur.

Environmental Persistence

Withstands freezing temperatures and can potentially survive *for years* under adverse environmental conditions.

Multiplies in temperatures ranging from 44.6-111° F (7-45° C).

Susceptible to chemical disinfection on *thoroughly cleaned surfaces*, but minute amounts can remain on porous surfaces and in hard-to-clean areas (drains, corners, beneath rubber matting, etc.) and remain a persistent source of infection.

Specific Control Measures

[Biosecurity Guidelines](#)

Release of Animals from Isolation

For animals having positive cultures while clinically ill:

Fecal cultures for 5 consecutive days after resolution of clinical signs. When 5 consecutive samples test negative for *Salmonella* spp. the horse may be released from isolation.

Note: 5 consecutive negative samples do not guarantee the horse is 'free' of *Salmonella* spp. Rather they demonstrate that the horse was not shedding the bacteria at the time of the sample collections and are therefore suggestive it is no longer shedding.

Biosecurity Management for Receipt of Previously Infected Animals

Isolate horse for 30 days from resident horses and re-test for 3-5 days of negative fecal cultures prior to releasing horse into general population.

Prior to entry into the general population the horse should be housed in an environment that can be cleaned and disinfected.

If the horse is turned out in a paddock, manure should be promptly removed and disposed of appropriately. Caretakers should wear protective boots. After the horse is released, the paddock should be harrowed and kept unused for 30 days.

Zoonotic Potential

All *Salmonella* serotypes which cause disease in horses are potentially contagious to people.

Immuno-compromised individuals and children should be kept away from any animal with clinical disease suspected or confirmed to be *Salmonella* spp. and from any clinically normal animals suspected or confirmed to be shedding.

[Link to A Review of Equine Zoonotic Diseases: Risks in Veterinary Medicine \(J.S. Weese\):
http://www.aaep.org/proceedings/02proceedings/910102000362.pdf](http://www.aaep.org/proceedings/02proceedings/910102000362.pdf)