

Necrotic Enteritis

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Other names: Enterotoxemia, rot gut.

Cause, transmission, and epidemiology: The disease is caused by a *Clostridium* bacterium (*C. perfringens*). Rapidly growing young birds, especially chickens and turkeys 2-12 weeks of age, are most susceptible. Necrotic enteritis is a disease associated with domestication and is unlikely to threaten wild bird populations. It is primarily a disease of broilers, roasters and turkeys. Ulcerative enteritis, on the other hand, commonly affects pullets and quail.

Necrotic enteritis does not spread directly from bird to bird. Bacteria are ingested along with infected soil, feces, or other infected materials, then grow in the intestinal tract. Infection commonly occurs in crowded or immunosuppressed flocks, and flocks maintained in poor sanitary conditions.

Clinical signs and lesions: Initially there is a reduction in feed consumption as well as dark, often blood-stained feces. Infected chickens will have diarrhea. Chronically affected birds become emaciated. The bird, intestines, and feces emit a fetid odor.

Differential diagnosis: Necrotic enteritis should be differentiated from ulcerative enteritis and coccidiosis. This can be complicated when necrotic enteritis and coccidiosis appear concurrently, as is often the case.

Diagnosis: The diagnosis of necrotic enteritis (NE) can be made on the basis of typical gross and histologic lesions in the intestine. The causative agent can be isolated to confirm the specific diagnosis.

Treatment: The clostridia bacteria involved in necrotic enteritis are sensitive to the antibiotics bacitracin, neomycin, and tetracycline. However, antibiotics such as penicillin, streptomycin, and novobiocin are also effective. Bacitracin is the most commonly used drug for control of necrotic enteritis.

Prevention: Prevention consists of the use of preventative levels of medication, parasite control, good sanitation, husbandry, and management.

Recovery: *Clostridium perfringens* is a spore-forming organism and infectious spores will remain in the soil after an outbreak. Over time, the spores will be dispersed resulting in lowered exposure for naïve birds but risk will not disappear. Controlling predisposing factors, like

immunosuppressive diseases and internal parasites will make birds more resistant. In highly susceptible species, like quail, preventative medication may be the only means of recovery.