

Salmonella Dublin

Background: *Salmonella enterica* subsp. *enterica* serovar Dublin (antigenic formula 1,9,12[Vi]:g,p:-) is a serovar of the O:9 (D₁) serogroup. S. Dublin is a serovar adapted to cattle, which is the primary host, but it can also infect and cause disease in different hosts, including humans. In cattle, S. Dublin causes acute and subclinical disease; symptoms of salmonellosis in cattle include: fever, diarrhea, abortions, respiratory signs (especially in calves), and systemic disease. S. Dublin is a zoonosis that causes one of the highest rates of systemic disease among all non-typhoidal salmonellosis cases in humans. Recently, the Animal Health Diagnostic Center at Cornell University published an animal health advisory that indicated an increase in the isolation of multidrug resistant strains of S. Dublin in New York. Among ceftriaxone-resistant *Salmonella* isolates reported by the National Antimicrobial Resistance Monitoring System (NARMS), S. Dublin represents the 40.8% and 2.9% of isolates from cattle and humans, respectively.

Animal reservoir: Cattle is the reservoir of this serovar, but it can cause disease in other animals as well.

Geographical distribution: S. Dublin has been reported in North America, South America, and Europe. In the U.S., S. Dublin is the second most common *Salmonella* serovar among clinical non-human sources.

Outbreaks: Numerous outbreaks have occurred in cattle, thus making serovar Dublin an important economic concern in the bovine industry. In addition, an outbreak of S. Dublin was reported in Danish fur farms. However, limited are the reports of outbreaks associated with *Salmonella* Dublin in humans.

Year	Location	Associated source	Number of cases
2019	US - multistate	Ground beef	13
1989	England and Wales	Unpasteurized cows' milk cheese	42
1979	Glasgow	Milk	700

Relevant links and references:

1. https://ahdc.vet.cornell.edu/docs/Salmonella_Dublin_in_Cattle_Health_Alert.pdf
2. <http://www.ncbi.nlm.nih.gov/pubmed/17217090>