

YERSINIOSIS

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
All nonhuman primates	Contact, perorally	Mostly death without clear symptoms, sometimes watery or haemorrhagic diarrhea	Yes	Antibiotics (varying antibiotic resistances !)	<i>In houses</i> Rodent control programs <i>in zoos</i> rodent control programs, vaccination.

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Susceptible animal groups All nonhuman primates.	
Causative organism <i>Yersinia pseudotuberculosis</i> , <i>Y. enterocolitica</i> . (<i>Yersinia enterocolitica</i> currently contains 6 biotypes, 57 serotypes and 8 phage types)	
Zoonotic potential Yes.	
Distribution World – wide, especially in moderate climates.	
Transmission Reservoir hosts are wild and domestic mammals and birds, which may contaminate food or water resources. Transmission to nonhuman primates by direct contact, or food born through contaminated food or water resources. Outbreak in children caused by contaminated carrots.	
Incubation period usually < 10 days.	
Clinical symptoms Mostly death without specific symptoms, sometimes weakness, depression, watery or haemorrhagic diarrhea, dehydration and fever. In affected colonies increased abortion and stillbirth rates. In temperate climates distinctive seasonality with appearance particularly in late winter and early spring.	
Post mortem findings acute ulcerative enterocolitis and lymphadenitis simplex or necroticans. Miliary necroses in liver and spleen, splenomegaly.	
Diagnosis Cultivation: cold enrichment, Congo red agar, PCR, Puls- field gel electrophoresis; rapid nested PCR, random amplified polymorphic DNA-PCR. For detection of <i>Y. enterocolitica</i> enzyme A a disc test based on its ticarcillin resistance has been described. Serotyping by tube agglutination.	
Material required for laboratory analysis Altered tissues, serum.	
Relevant diagnostic laboratories Local veterinary or medical laboratories.	
Treatment 1. Antibiotics. Cave: <i>Yersiniae</i> exhibit varying antibiotic resistances through broad spectrum enzyme A production depending on the serogroups involved. Many <i>Y. enterocolitica</i> strains are resistant to β -lactams due to chromome- mediated β -lactamase-production, others are partially resistant to cephalosporins or oxacillin due to cephalosporinase (enzyme B). Antibiotics of choice are the fluoroquinolones (Ofloxacin).	
Prevention and control in zoos Rodent control in animal houses and kitchens, good hygienic practices. Vaccination of endangered colonies.	

Suggested disinfectant for housing facilities
Notification
Guarantees required under EU Legislation
Guarantees required by EAZA Zoos
Measures required under the Animal Disease Surveillance Plan
Measures required for introducing animals from non-approved sources
Measures to be taken in case of disease outbreak or positive laboratory findings
Conditions for restoring disease-free status after an outbreak
Experts who may be consulted
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