

MEASLES (Minia)-VIRUS

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
Naturally: man foreign hosts: Pongidae, Cercopitheci- dae, Cebidae	Aerogenously	In Cercopithecidae fever, coryza, conjunctivitis, bronchitis, occasionally rash. In Cebidae respiratory symptoms, death	Yes – in Callitrichidae up to 100 %, in macaques 5%		<i>In houses</i> <i>in zoos</i> Quarantine procedures, prevention of contacts between young children and nonhuman primates.

Fact sheet compiled by Manfred Brack, formerly German Primate Center, Göttingen / Germany.	Last update November 2003
Fact sheet reviewed by W. Rietschel, Wilhelma Zoologischer-Botanischer Garten, Stuttgart, Germany C. Furley, Howletts Zoo, Bekesbourne, United Kingdom	
Susceptible animal groups <i>Pan troglodytes, Gorilla gorilla, Macaca mulatta, M. radiata, M. fuscata, M. fascicularis, M. tonkeana, Colobus guereza, Presbytis cristatus, Aotus trivirgatus, Saimiri sciureus, Callithrix jacchus, Saguinus spp.</i>	
Causative organism Measles virus (Paramyxoviridae – Morbilliviruses).	
Zoonotic potential So far – not.	
Distribution World – wide.	
Transmission Aerogenously. Once a monkey population becomes infected, measles may spread bushfire- like.	
Incubation period In man: approximately 14 days; in nonhuman primates approximately 7 days.	
Clinical symptoms Mostly mild, influenza – like with fever, coryza, conjunctivitis, bronchitis and occasionally rash. In macaques the death rate is approximately 5% with death following anorexia, dermatitis, diarrhoea, and dehydration. In Callitrichidae respiratory symptoms prevail with up to 100 % fatality rates, in other cases hemorrhagic diarrhoea, hypothermia, cardiovascular collapse, death. Edema of the periorbital region. Cave: Measles suppress tuberculin tests !	
Post mortem findings In fatal cases of nonhuman primates proliferative interstitial giant cellular pneumonia, rarely Koplik – spots in the oral mucous membranes.	
Diagnosis Virology: tissue culture; Serology: HIH -, CF-, haemolysis – inhibition-, neutralization – tests.	
Material required for laboratory analysis Lesions, whole blood or serum.	
Relevant diagnostic laboratories Local medical laboratories	
Treatment	
Prevention and control in zoos Proper quarantine procedures, avoidance of contacts between young children and nonhuman primates. Measles vaccination, beginning at 6 months of age in macaques and at 15 months in the great apes. For vaccination either measles vaccine for human use (Attenuvax) or a combined canine distemper – measles	



vaccine (Vanguard) may be used with Vanguard vaccine resulting in higher neutralisation antibody titers.

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**

Frau Dr. A. Tischer, NRZ, Berlin

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