

HEPATITIS B VIRUS

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
Pongidae, Hylobatidae, <i>Lagothrix</i> sp. <i>Lemur</i> sp.	Percutaneous (blood transfusion, drugs), unprotected sex, perinatal, direct contact person to person	Rarely fulminant hepatitis, more often serious late sequelae (liver cirrhosis, hepatocellular carcinoma in man)	Rarely from acute hepatitis, more often from chronic liver diseases.	Interferon-alpha in man	<i>In houses</i> Vaccination <i>in zoos</i> vaccination

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Susceptible animal groups <i>Pan troglodytes, Pongo pygmaeus, Gorilla gorilla, Lagothrix</i> sp., <i>Varecia variegatus</i> .	
Causative organism Hepatitis B-Virus (family Hepadnaviridae, genus Orthohepatnavirus) > 8 human genotypes (A – H) with 4 mayor serotypes (ayw, ayr, adw, and adr), 1 chimpanzee-, 1 gorilla-and 4 gibbon genotypes.	
Zoonotic potential Yes.	
Distribution World-wide.	
Transmission Blood transfusion, unprotected sex, direct contact (virus excretion in saliva,vaginal discharges, urine, bile, breast milk, seminal fluid, sweat, tears).	
Incubation period 75 (40 – 180) days.	
Clinical symptoms Jaundice, occasionally purpura. Tendency of chronic infections particularly in infants	
Post mortem findings Hepatocellular necroses, lymphocytic hepatitis, “ground glass” hepatocytes, acidophilic inclusion bodies, hepatocellula carcinoma (observed also in nonhuman primates !)	
Diagnosis Serology: HbsAg, HbcAG, HbeAG, anti HBs, anti HBc antibodies (microparticle enzyme immunoassays, restriction pattern analysis of pre – S amplicons, PCR, immunohistochemistry.	
Material required for laboratory analysis Needle biopsies, saliva, serum, others secretions.	
Relevant diagnostic laboratories <ol style="list-style-type: none"> Konsiliarlaboratorium für HBV und HDV, Institut für Medizinische Virologie des Universitätsklinikums Gießen Frankfurter Straße 107 35392 Gießen Tel.: 0641 99412 – 01 Fax: 0641 99412 – 00 e-mail: wolfram.h.gerlich@viro.med.uni-giessen.de local medical laboratories The Simian Diagnostic Laboratory et Virus Reference Laboratories, Inc. 7540 Louis Pasteur Road SAN ANTONIO/Texas 78229 	



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Treatment

Interferon-alpha in man

Prevention and control in zoos

Vaccination. Care: Occasional vaccination failures due to mutations in the surface region or in the precore region of the HBV-genome in different genotypes.

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****References**

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