RABIES

ANIMAL GROUP AFFECTED	TRANS-MISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
Reservoirs: wild and domestic canides, felids, viverrids, procyonids, chiroptera. Spillover hosts: primates (in-cluding man).	Directl: biting, contact of mucous membranes or wounds to oral mucous secretions or membranes.	In nonhuman primates usually silent rabies: salivation, paralysis, automutilation, sudden death.	Yes.	None.	Quarantine, strict necropsy procedures, prevention of contact to wildlife (including bats!).

Fact sheet compiled by
Manfred Brack, formerly German Primate Center, Göttingen/Germany.

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Susceptible animal groups
Street rabies virus: All mammalian species including nonhuman primates. Mokola-virus: Shrews and rodents, other bat rabies viruses chiroptera

Causative organism
Lyssavirus Genus of the Rhabdovirus family with seven genotypes.All rabies virus (rhabodoviridae, lyssaviridae) strains: classic street rabies virus (genotype 1), bat rabies viruses : (Lagos bat virus, (genotype 2), Mokola virus (genotype 3 – shrew- and rodent associated bot not with bats!), Duvenhage virus (genotype 4), European bat viruses (EBLV) types 1 (genotype 5) and 2 (genotype 6), Australian bat lyssa – type virus (genotype 7).

Zoonotic potential
Yes. Human infections also following bites by nonhuman primates!

Distribution
Worldwide. EBLV I throughout mainland Europe, EBLV type II isolated in Netherlands, UK and Switzerland.

Transmission
Primarily through biting or scratching lesions by rabid canids (Europe, Asia), racoons(USA), vampire bats(South America), other possiible routes: contact of mucosal membranes or skin lesions to mucous secretions of rabid animals (or man). Vaccination using life rabies virus vaccines. Aerogenous infections questionable European bat lyssavirus type I mainly in *Eptesicus serotinus,* EBLV type 2 in *Myotis daubentoniii, M. dasycneme,* Lagos bat lyssavirus in *Epomorphorus wahlbergi.*

Incubation period

Depending on the site of infection variing from 3 weeks to several months.

Clinical symptoms
In nonhuman primates usually silent rabies : salivation, paralysis, depression, automutilation sudden death. Rarely furious rabies: hyperaggression, biting.

Post mortem findings
Nonpurulent encephalitis with formation of large eosinophilic cytoplasmic inclusion bodies (Negri bodies) within nerve cells.

Diagnosis
Histopathology : Negri bodies, immunofluorescence staining of brain tissues (particularly hippocampus cerebellum, medulla oblongata), corneal smears, skin or mucosal scrapings, electron microscopy, virus cultivation, PCR, RT-PCR, serotests (rapid fluorescent focus inhibition test), mouse inoculation tests, western blots.

Material required for laboratory analysis
Brain tissues, serum.

EU Reference Laboratory

AFSSA, Nancy
Laboratoire d'études sur la rage et la pathologie des animaux sauvages

Domaine de Pixérécourt, BP 9
F-54220 Malzéville
France

OIE Reference Laboratories

- **Dr A. Wandeler**
  Centre of Expertise for Rabies, Animal Diseases Research Institute
  3851 Fallowfield Road, P.O. Box 11300, Station H, Nepean, Ontario K2H 8P9
  CANADA
  Tel: (1.613) 228.66.98 Fax: (1.613) 228.66.69
  Email: alex.wandelera@inspection.gc.ca

- **Dr J. Barrat**
  AFSSA-LERPAS, Laboratoire d'études sur la rage et la pathologie des animaux sauvages
  Domaine de Pixérécourt, BP 9, 54220 Malzéville
  FRANCE
  Tel: (33 (0)3) 83.29.89.50 Fax: (33 (0)3) 83.29.89.58
  Email: j.barrat@afssa.fr

- **Mme F. Cliquet**
  AFSSA-LERPAS, Laboratoire d'études sur la rage et la pathologie des animaux sauvages
  Domaine de Pixérécourt, BP 9, 54220 Malzéville
  FRANCE
  Tel: (33 (0)3) 83.29.89.50 Fax: (33 (0)3) 83.29.89.58
  Email: f.cliquet@afssa.fr

- **Dr T. Müller**
  Institute of Epidemiology, Friedrich-Loeffler Institut, Federal Research Institute for Animal Health
  Seest. 55, 16868 Wustherhausen/Dosse
  GERMANY
  Tel: (49.33) 97.98.01.86 Fax: (49.33) 97.98.02.00
  Email: thomas.mueller@wus.bfav.de

- **Dr Claude Taurai Sabeta**
  Onderstepoort Veterinary Institute, Rabies Unit
  Private Bag X05, Onderstepoort 0110
  SOUTH AFRICA
  Tel: (27.12) 529.94.39 Fax: (27.12) 529.93.90
  Email: sabetac@arc.agric.za

- **Dr Anthony Fooks**
  Rabies and Wildlife Zoonoses Group, Virology Department, VLA Weybridge
  New Haw, Addlestone, Surrey KT15 3NB
  UNITED KINGDOM
  Tel: (44.1932) 35.78.40 Fax: (44.1932) 35.72.39
  Email: t.fooks@vla.defra.gsi.gov.uk

Relevant diagnostic laboratories
Konsiliarlaboratorium für Tollwut,
Universitätsklinikum Essen,
Institut für Virologie,
Tel..: 0201.723-3561
„ „ -3550
E-mail.: roggendorf@uni-essen.de
Stefan.ross@uni-essen.de

Friedrich-Loeffler-Institut,Bundesforschungsinstitut für Tiergesundheit,
Standort Wusterhausen,

Tel.: 033979.80-0

Nationales Referenzzentrum für Tropische Infektionserreger am Bernhard-Nocht-Institut, Hamburg.
Tel.: 040. 42818 – 401
e-mail: MZD@bni-hamburg.de

Local veterinary laboratories (State laboratories).

Treatment
None

Prevention and control in zoos
Proper quarantine of new arrivals, prevention of contact to wildlife including bats. Vaccination **(inactivated vaccines only!)** of possibly exposed animals including bat colonies. In man: immediate woud disinfection, antisera, vaccination.

Suggested disinfectant for housing facilities

Notification
In Germany: State Veterinarian according to § 1 "Verordnung über anzeigepflichtige Tierseuchen, 3.Nov.2004".

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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