

## European Workshop on Bat Rabies

Vilnius, Lithuania, 16 May 2004

### Recommendations Working Group 2 - Virus testing, data management and public health



#### 1. Post-exposure treatment

Following a human biting incident, PET should be started immediately (including washing the wound, vaccination and RIG where appropriate). If laboratory results from the '*suspect*' bat are negative by two tests (FAT [4 hrs] and RTCIT [24 hrs]) further treatment is not necessary.

#### 2. Diagnostic tests

FAT on brain smears should be the primary diagnostic tool for '*suspect*' rabies. Additional OIE recommended tests should include the rabies tissue culture isolation test (RTCIT). In some circumstances when RTCIT is not available the mouse inoculation test (MIT) can be used. Molecular tools (principally RTPCR) can be used for rapid confirmatory diagnosis and in further sequence analysis and genotyping.

#### 3. Testing of rare bat species

All bats (regardless of species) should be submitted to their National Rabies Reference Laboratory for lyssavirus testing. Brain sample collection using a biopsy needle through the orbit of the eye socket can be used to cause minimal disruption to the bat skull. The bat can then be archived as a museum specimen.

#### 4. Virus typing

Two techniques can be used: serotyping using monoclonal antibody reactivity patterns and genotyping using EBLV-specific primers or lyssavirus generic primers. Any diagnostic laboratory that detects a FAT positive bat, the virus should be typed from original brain material (confirmation can be conducted in collaboration with a number of specialised rabies laboratories, OIE reference laboratories and WHO Collaborating Centres responsible for rabies).

#### 5. Passive surveillance for lyssaviruses in bats

All countries should implement the following:

- Lyssavirus surveillance of any bat following a biting / scratching incident in humans.
- Lyssavirus surveillance of dead and sick bats – this includes all species of bat (negative diagnostic results are as important as positive results for our understanding of variant / host adaptation).

## 6. Active surveillance for lyssaviruses in bats

Active surveillance is recommended in all European countries in order to improve our understanding of lyssavirus dynamics / epidemiology / pathogenesis in different species. This approach should be 'targeted' to specific species of bats ensuring that statistically significant numbers are caught and tested. Research is required to understand which bat species are the main reservoirs for EBLVs and also identify the species (either anthropophilic or not) that constitutes the greater risk to public health.

## 7. Human vaccination

Rabies vaccination should be compulsory or at least highly recommended for all people working with bats. Human tissue culture derived vaccines are recognised by the WHO to elicit the best protection. Vaccine elicited antibodies will neutralise both EBLV type-1 and type-2. Individual follow up of EBLV specific neutralising antibodies should be considered.

## 8. Education

Lyssaviruses pose an extremely low (but significant) risk. Members of the general public should be aware of the risk and be advised what they should do if bitten by a bat and who to contact when confronted with a 'grounded' bat. Advice is required for other animals (especially companion animals) that are bitten by a bat.