

Advice 21-2017 of the Scientific Committee of the FASFC on the royal decree on the control of trypanosomes (dourine and surra) in equids.

The Scientific Committee has been requested to evaluate the draft royal decree on the establishment of control measures for trypanosomes in equids from the perspective of animal health risk control.

Dourine is a contagious equine venereal disease which is on the list of notifiable diseases of the OIE and is caused by the protozoan parasite 'called' *Trypanosoma (T.) equiperdum*. Indeed, in the scientific literature there are controversies regarding the etiology of dourine and the classification of *T. equiperdum* due to the genetic overlap with *T. evansi* and *T. brucei*. Unlike other trypanosomiasis (surra), dourine is transferred almost exclusively via venereal routes. The differential diagnosis between dourine and surra is extremely difficult. Surra is a trypanosomiasis caused by *T. evansi* transmitted by blood-sucking insects.

In its Opinion 04-2016, the Scientific Committee was of the opinion that the risk of introduction of dourine in Belgium is very low, but that vigilance is certainly justified, given the globalization of trade in sperm and intercontinental movements of horses. Transmission of infection between animals can occur sexually (*T. equiperdum*) and mechanically via vectors (*T. evansi*). The diagnosis of dourine remains a challenge and is based on a combination of the presence of clinical symptoms, serological test results and the presence of an epidemiological link with the disease.

The Scientific Committee welcomes the drafting of adequate legislation to provide the necessary tools in case of introduction of dourine or surra into the territory and supports the draft royal decree which reflects the recommendations made in Opinion 04-2016. This makes a number of general and specific recommendations.

The Scientific Committee is aware of the European legislation imposing restrictions on intra-community trade in the case of dourine, but regrets that it does not do so in the event of surra. It would therefore be necessary to develop, as far as possible, specific control measures for each diseases. Unfortunately, considering the current lack of knowledge and effective techniques, it is therefore not possible to develop control measures specific to either form of trypanosomiasis. Inclusion of *T. evansi* and *T. equiperdum* in the definition of a dourine case (as proposed in the royal decree) offers maximum guarantees for disease control.

Considering that for most (sport)horses, breeding takes place by artificial insemination, the Scientific Committee also insists that the specific measures for artificial insemination in equidae be incorporated into the ad hoc legislation on artificial insemination. In particular, it is recommended to use a molecular test to examine semen and to extend the quarantine period to 40 days for equidae originating from endemic or at risk areas.

As regards the interval when applying 2 consecutive serological tests, some ambiguity may be present in the royal decree. On the one hand, diagnosis of dourine can be made using 2 consecutive serological tests (Article 2, 10 °). On the other hand, two consecutive serological tests are necessary excluding these measures in case of a suspected case of dourine (Article 5.1.1.).

The Scientific Committee is of the opinion that for the first case (identification of a case of dourine) it is important to exclude false positive results. Hence, an interval of 15 days is proposed between the paired sera. In the 2nd case (dourine suspicion is ruled out) it is important to exclude false negative results. Therefore, it is proposed to extend the interval of paired sera from 25 to 40 days.

Since the risk of transmitting *T. equiperdum* by vectors is minimal and *T. evansi* is exotic regarding our regions, the Scientific Committee does not recommend protective measures against dourine vectors, these being difficult to implement and their effectiveness being questionable. It is however justified to recommend trapping of vectors during their activity period following a proven case, in order to anticipate possible propagation of surra.

The full text is available on this website in dutch and in french.