WOAH Reference Laboratory Reports Activities 2023

Activities in 2023

This report has been submitted : 12 juin 2024 15:43

Laboratory Information

Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:	Equine infectious anemia
Address of laboratory:	Istituto Zooprofillatico Sperimentale delle Regioni Lazio e Toscana (IZSLT) Via Appia Nuova 1411 00178 Rome
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E-mail address:	teresa.scicluna@izslt.it
Website:	
Name (including Title) of Head of Laboratory (Responsible Official):	Maria Teresa Scicluna Head of Virology Unit
Name (including Title and Position) of WOAH Reference Expert:	Maria Teresa Scicluna
Which of the following defines your laboratory? Check all that apply:	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA		16250	1
AGID		286	1
Immunoblot		97	1
Direct diagnostic tests		Nationally	Internationally
PCR		28	0

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOAH MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
EIAV positive sera	ELISA	provided	0	14	1	NEW ZEALAND,
EIAV positive sera	AGID	provided	0	14	1	NEW ZEALAND,
EIAV p26 Antigen	AGID	produced	30	0	1	ITALY,
EIAV positive sera	AGID	produced	90	0	1	ITALY,

ELISA reagents	ELISA	produced	280	0	1	ITALY,

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?

No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

No

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?

Yes

NAME OF WOAH MEMBER COUNTRY SEEKING ASSISTANCE	DATE	WHICH DIAGNOSTIC TEST USED	NO. SAMPLES RECEIVED FOR PROVISION OF DIAGNOSTIC SUPPORT	NO. SAMPLES RECEIVED FOR PROVISION OF CONFIRMATORY DIAGNOSES
BRAZIL	2023-07-31	AGID	0	1
BRAZIL	2023-07-31	ELISA	0	1
BRAZIL	2023-07-31	iMMUNOBLOT	0	1

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

Yes

NAME OF THE WOAH MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
HUNGARY	Advice on the use in series of the serological diagnostic methods proposed by WOAH for an increase in the efficacy of the diagnostic system in terms of sensitivity and specificity	by email

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?

No

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:
The WOAH Reference Laboratory, as National Reference Centre for EIAV, continues to collect data on surveillance activities and outbreaks using online platform made available to the Italian Laboratory Network who every trimester upload the results of the tests conducted according to the National Surveillance Programme. The data is elaborated and presented on the website https://craie.izslt.it/craie/ with different level of access as following: • a section accessible to the public to view the national epidemiological situation (CRAIE Web GIS), • a section accessible to the official authorities (CRAIE Web GIS), within which they can manage the outbreaks by downloading the list of premises that must be

controlled, within a radius of 3 km from the outbreak and within 30 day from the declaration of outbreak, • The whole system is also accessible to the National and Regional Veterinary to verify the activities carried out according to their competency.

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED:
The data collected can be viewed at the following website https://craie.izslt.it/craie/

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

1
Angela Ostuni, Valentina Iovane, Magnus Monné, Maria Antonietta Crudele, Maria Teresa Scicluna, Roberto Nardini, Paolo Raimondi, Raffaele Frontoso, Raffaele Boni, Alfonso Bavoso, A double-strain TM (gp45) polypeptide antigen and its application in the serodiagnosis of equine infectious anemia,Journal of Virological Methods, Volume 315, 2023, 114704, ISSN 0166-0934, https://doi.org/10.1016/j.jviromet.2023.114704

b) International conferences:

1
FEEVA, Prague, Czech Republic -Disease Surveillance Working Group;VII Summit 26th-27th September "Lessons learnt from the Italian experience on the control of Equine Infectious Anaemia"

c) National conferences:

2
By Webinar, "Centro di Referenza per le l'Anemia Infettiva Equina e Centro di Referenza per le Malattie degli Equini: attività e prospettive future" 14/12/2023, organized by WOAH Reference Laboratory and National Reference Centre for Equine Infectious Anemia, Istituto Zooprofilattico Sperimentale del Lazio e della Toscana M. Aleandri.
In presence "Salute e benessere del cavallo non DPA in Italia: un contributo concreto dai progetti di ricerca" 26/06/2023 organized by Ministry of Health, Italy.

d) Other (Provide website address or link to appropriate information):

2
https://craie.izslt.it/craie/
https://www.izs.it/equinotio/index.html

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

Yes

a) Technical visit : 2

b) Seminars : 0

c) Hands-on training courses: 0

d) Internships (>1 month) 0

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
A	GEORGIA	2
	THAILAND	

A		4

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO/IEC 17025/2018	pdf	Accreditation certificate 0201L rev 6.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
AGID	ACCREDIA
Serological ELISA	ACCREDIA
Immunoblot	ACCREDIA

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

Biosecurity Manager and a Biosecurity Manual revision 11, current version emitted on June 5th 2024

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
FEEVA-Disease Surveillance Working Group, VII Summit	2023-09-26	Prague , Czech Republic	Speaker	Lessons learnt from the Italian experience on the control of Equine Infectious Anaemia

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?

Yes

24. Do you network (collaborate or share information) with other WOAH Reference Laboratories designated for the same pathogen?

No

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen?

No

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

No

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the Test	WOAH Member Countries
Technical competence	Organizer	11	AGID	GERMANY, ITALY, SAN

on AGIDT	Organizer	11	AGID	MARINO,
Technical competence on ELISA	Organizer	43	Serological ELISA	GERMANY, ITALY, SAN MARINO,

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
Review of EIA Manual of Diagnostic Tests and Vaccines for Terrestrial Animals together with other WOAH RL	By email	Review terminated and consigned

29. Additional comments regarding your report:

Yes

In relation to the activities of this Reference Laboratory, considering that Equine Infectious Anaemia (EIA) is not a transboundary and zoonotic disease and affects only equids, the attention dedicated by each country is especially related to diagnostic activities linked with the international movement of horses. Furthermore, even if EIA prevalence is in general very low, however it could cause major economic impact in case of outbreaks in economically valuble horses. In fact, in the past EIA was not included in the ex OIE list A of diseases, and at present, according to the Animal Health Law (Reg 2016/429) for the European Union, EIA is listed in the D and E categories, meaning that measures are needed to prevent it from spreading both within and into the Member States and that there is a need for its surveillance within the European Union. Both in the European Union and in the other Regional Countries, surveillances activities for this disease are limited or non-existing, as priority is given to other diseases of other species accordingly with the animal production economics of the single countries.

During 2023/2024, following the request by WOAH, the Italian and Chinese RLs for EIAV jointly revised the EIA Chapter of the WOAH Terrestrial Manual. In addition, Dr. Munstermann for WOAH organised a Webinar on Equine Infectious Anemia, on the 5th June 2024, in which the European Union Reference Laboratory was also included, together with the WOAH RLs as speakers the WOAH for an audience principally working in Asia. Such events aid to give visibility to the activities which ,WOAH RL carry out, and the support that they can provide on request. Similar events for other Regions would be helpful in giving a greater visibility to the WOAH RL.

Moreover the network is at present working on the organization of a Interlaboratory trial (IT) on EIAV to which all the WOAH members could participate.

Stating all the information provided above, we would like to make proposals, confirming those of the previous report, as the visibility of the RL, in fact, is the major key for the expansion of RL activities:

· The WOAH RLs, with the support of WOAH, could implement collaboration with the local laboratories of the Regional Countries, to collect biological samples from positive subjects, in target organs and EDTA blood samples, to perform genome sequencing for the study of the virus and to evaluate the sensitivity and the sensibility of the molecular methods that are in development for the detection of circulating EIAVs.

· Furthermore, means to increase awareness among member states could be improved on WOAH website informing them on the availability by the WOAH RLs to provide training, participate to research projects, validation and comparison of methods, supply reagents and ITs.