World Organisation for Animal Health

Adrian Whatmore - - UNITED_KINGDOM

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Ovine epididymitis
***Address of laboratory:**	Department of Bacteriology, APHA, Woodham Lane, Addlestone, Surrey, UNITED KINGDOM
***Tel:**	+44-1932 35.76.10
***E-mail address:**	Adrian.Whatmore@apha.gov.uk
Website:	www.apha.gov.uk
***Name (including Title) of Head of Laboratory (Responsible Official):**	Dr Jenny Stewart (Interim)
***Name (including Title and Position) of WOAH Reference Expert:**	Dr Adrian Whatmore, Head of Bacteriology
***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
Complement Fixation test	Yes	56	846
Direct diagnostic tests		Nationally	Internationally
Primary Culture	Yes	2189	20
RT-PCR	Yes	1	0

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TOR2: REFERENCE MATERIAL

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

Yes

Type of reagent available	Related diagnostic testing	Produced/ imported	Quantity supplied nationwide (ml, mg)	Quantity supplied at international level (ml, mg)	Name of beneficiary WOAH Member Countries

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

No

4. Did your laboratory produce vaccines?

Not applicable

5. Did your laboratory supply vaccines to WOAH Members?

Not applicable

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?

No

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
IRAQ	Guidance on molecular testing and speciation	In-person (APHA, Weybridge, UK)

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

Yes

				WOAH Member Countries

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Title of the study	Duration	Purpose of the study	Partners (Institutions)	involved other than your country
Role of Camels in the Transmission of Brucella spp and Middle East Respiratory Syndrome Coronavirus to Humans in Kenya.	4 years.	To protect human and animal health by describing and quantifying the transmission dynamics of Brucella spp and the Middle East Respiratory Syndrome Coronavirus (MERSCoV) and developing a robust brucellosis prevention and control model for Kenya.	Defence Threat Reduction Agency – USA; Washington State University; Kenyan Medical Research Institute (KEMRI).	KENYA UNITED STATES OF AMERICA
Supporting the Safe and Effective Control of Brucellosis in Africa.	3 years.	Capacity building	UK International Biological Security Programme (IBSP), veterinary and public health laboratories in Rwanda (University of Rwanda; Rwandan Agriculture Board) and Tanzania (Kilimanjaro Clinical Research Institute; Nelson Mandela African Institute of Science and Technology) , Penn State University (USA).	RWANDA TANZANIA UNITED STATES OF AMERICA

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?

No

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

No

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:

3

Lyimo, Beatus, Ephrasia Hugho, Coletha Mathew, Charles Mayenga, Abdul Hamid Lukambagire, Samson Lyimo, Lidia Munuo, Maurice Byukusenge, Jodie Withall, Roland T. Ashford, Blandina T. Mmbaga, Zachariah Makondo, John McGiven, Jessica Radzio-Basu, Erika Ganda, Earl A. Middlebrook, Andrew W. Bartlow, Jeanne M. Fair, Gabriel Shirima, Nammalwar Sriranganathan, Rudovick R. Kazwala,

Peter J. Hudson, Isabella M. Cattadori, Vivek Kapur, Joram J. Buza, and Robab Katani. (2024) Seroprevalence and risk factors for brucellosis amongst livestock and humans in a multi-herd ranch system in Kagera, Tanzania. Frontiers in Public Health, 12: 1478494
Adrian Whatmore - Brucellosis (Brucella abortus, Brucella melitensis, Brucella suis) - UNITED_KINGDOM
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Mbwambo, Gershom A., Marco van Zwetselaar, Tolbert Sonda, AbdulHamid S. Lukambagire, Judith S. Njau, Boaz Wadugu, Ignass P. Ignass, Nelson B. Amani, Ephrasia A. Hugho, Matthew P. Rubach, Philoteus Sakasaka, Rose S. Oisso, Nestory Mkenda, Gabriel Shirima, Roland T. Ashford, Daniel T. Haydon, Venance P. Maro, Rudovick R. Kazwala, Happiness H. Kumburu, Blandina T. Mmbaga, and Jo E. B. Halliday (2024) Complete genome sequence of Brucella abortus isolated from a human blood culture sample in Tanzania. Microbiology Resource Announcements, 0: e00930-23.
Rudolf, I., R. Kejíková, M. Kosoy, Z. Hubálek, K. Mravcová, S. Šikutová, A. M. Whatmore, and S. Al Dahouk. (2024) Brucella microti and rodent-borne brucellosis: A neglected public health threat. Zoonoses Public Health, 72, 1-8

b) International conferences:

2
Emergence of Brucella canis as a threat to companion animal and public health in Great Britain, related to the importation of dogs from endemic countries
76th Annual Brucellosis Research Conference (18-19th May, 2024), Texas, USA
Roland T. Ashford1, Anna Haughey1, Jodie Withall1, Amanda Dainty1, Andrew Taylor1, Karen Hinchliffe2, Stephen Wyllie3, Andrew Frost3, Adrian Whatmore1, John McGiven1
1 WOAH and FAO Brucellosis Reference Laboratory, Department of Bacteriology, Animal & Plant Health Agency (APHA), Surrey, UK; 2 Surveillance and Laboratory Services Department, Animal & Plant Health Agency (APHA), Surrey, UK; 3 Veterinary One Health Team, Animal & Plant Health Agency (APHA), Surrey, UK
Results of inter-laboratory proficiency test for whole genome sequencing of atypical Brucella spp.
76th Annual Brucellosis Research Conference (18-19th May, 2024), Texas, USA
Girault Guillaume1, Freddi Luca1, Ana Cristina Ferreira2, Giuliano Garofolo3, Lavicie Arais4, Adrian Whatmore4, Claire Ponsart1, Roland T. Ashford4
1 EU/WOAH & National Reference Laboratory for Animal Brucellosis, Animal Health Laboratory, Paris-Est University/ANSES, MaisonsAlfort, France; 2 National Institute for Agrarian and Veterinary Research, I.P. (INIAV, IP), Oeiras, Portugal; 3 National and WOAH Reference Laboratory for Brucellosis, Istituto Zooprofilattico Sperimentale dell'Abruzzo e Molise "G. Caporale", Teramo, Italy; 4 WOAH and FAO Brucellosis Reference Laboratory, Animal and Plant Health Agency (APHA), Surrey, UK

c) National conferences:

1
Emergence of Brucella canis in Great Britain related to the importation of dogs
Surveillance Intelligence Forum Conference (15-16th Oct, 2024), Nottingham
Roland Ashford

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

2
Curation of Brucella multilocus sequencing typing (MLST) international database. Tool originally developed by APHA and now very widely used globally to type Brucella. Curated by Adrian Whatmore/Roland Ashford. https://pubmlst.org/brucella/
Adrian Whatmore also a curator of MLVA database (alternative typing tool best suited to local epidemiology).

http://mlva.i2bc.parissaclay.fr/brucella

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 : 3

b) Seminars : 0

c) Hands-on training courses: 3

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	RWANDA	3
A	KENYA	8
A	TANZANIA	7
C	TANZANIA	1
C	KENYA	1
C	TANZANIA	1

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO17025:2017	PDF	APHA UKAS cert to 25 Nov 25.pdf
ISO9001:2015	PDF	ANIMAL PLANT HEALTH AGENCY - Certificate UK013916 - ISO 9001 - exp. 25-07-2026.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
CFT	ISO17025:2017
Bacterial isolation	ISO17025:2017
Biotyping	ISO17025:2017
Realtime PCR	ISO17025:2017

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

Yes

High containment facilities for handling all Brucella live work in line with UK legislation (ADCP, SAPO, ATCSA Schedule 5).

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	location	Role (speaker, presenting poster, short communications)	Title of the work presented
Camel and Food Security Conference	2024-10-29	Kuwait	At request of WOAH SubRegional Representation for Arabian Gulf - presenting on brucellosis problems and evidence gaps in camelids and as part of an Expert Pane	Brucellosis in Camels

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 during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
VETQAS PT0024 Brucella ovis CFT	organizer/participant	1	Brucella ovis CFT	UNITED KINGDOM,
VETQAS PT0187 Brucella PCR	organizer/participant	13	Brucella PCR	UNITED KINGDOM,

TOR12: EXPERT CONSULTANTS

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

Yes

Kind of consultancy	Location	Subject (facultative)
Attended the Camel and Food Security Conference in Kuwait as WOAH Brucellosis Expert at request of WOAH Sub-Regional	Kuwait	Camel Brucellosis

Representation for Arabian Gulf		

29. Additional comments regarding your report:
Little demand for B. ovis support specifically but it is considered in technical support provided for smooth Brucella.

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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?
Yes
NETWORK/DISEASE: Ovine epididymitis
ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC): Worked on update of WOAH Ovine epididymitis chapter.
NO. PARTICIPANTS:4
PARTICIPATING WOAH REF. LABS: All (Italy, France, UK, Argentina)

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?
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