

OIE Reference Laboratory Reports Activities

Activities in 2015

This report has been submitted : 2016-02-05 13:09:51

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Antimicrobial resistance
Address of laboratory:	Animal and Plant Health Agency, New Haw, Addlestone Surrey KT15 3NB Weybridge UNITED KINGDOM
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Name (including Title) of Head of Laboratory (Responsible Official):	Mr C. Hadkiss, Chief Executive, Animal and Plant Health Agency.
Name (including Title and Position) of OIE Reference Expert:	Dr Christopher Teale MRCVS Head of Antimicrobial Resistance.
Which of the following defines your laboratory? Check all that apply:	Governmental Research Other: Veterinary surveillance

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
Direct diagnostic tests			
Disc diffusion susceptibility test	Yes	6916	0
MIC Determination	Yes	>1037	0
Polymerase chain reaction	Yes	>1000	0
Whole genome sequencing	Yes	>100	0

**ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards.
To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.**

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

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

No

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
ISRAEL	Quality assurance procedures.	E-mail.

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)
The European Union Summary Report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2015	2015	Surveillance of AMR in the EU in 2015	

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

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

a) Articles published in peer-reviewed journals: 12

Card RM; Mafura M; Hunt T; Kirchner M; Weile J; Rashid M-U; Weintraub A; Nord CE; Anjum MF 2015 Impact of ciprofloxacin and clindamycin administration on Gram-negative bacteria isolated from healthy volunteers and characterization of the resistance genes they harbor. *Antimicrobial Agents and Chemotherapy* 59 (8) 4410-4416

Wales AD; Davies RH 2015 Co-selection of resistance to antibiotics, biocides and heavy metals, and its relevance to foodborne pathogens. *Antibiotics* 4 (4) 567-604

Catry B; Cavaleri M; Baptiste K; Grave K; Grein K; Holm A; Jukes H; Liebana E; Navas AL; Mackay D; Magiorakos A-P; Romo MAM; Moulin G; Madero CM; Pomba MCMF; Powell M; Pyorala S; Rantala M; Ruzauskas M; Sanders P; Teale C; Threlfall EJ; Torneke K; van Duijkeren E; Edo JT 2015 Use of colistin-containing products within the European Union and European Economic Area (EU/EEA): development of resistance in animals and possible impact on human and animal health. *International Journal of Antimicrobial Agents* 46 (3) 297-306.

Cheney TEA; Smith RP; Hutchinson JP; Brunton LA; Pritchard G; Teale CJ 2015

Cross-sectional survey of antibiotic resistance in *Escherichia coli* isolated from diseased farm livestock in England and Wales. *Epidemiology and Infection* 143 (12) 2653-2659.

Smith H; Bossers A; Harders F; Wu G; Woodford N; Schwarz S; Guerra B; Rodriguez I; van Essen-Zandbergen A; Brouwer M; Mevius D 2015 Characterization of epidemic Inc11-Igama plasmids harboring ambler class A and C genes in *Escherichia coli* and *Salmonella enterica* from animals and humans. *Antimicrobial Agents and Chemotherapy* 59 (9) 5357-5365.

Larsen AR; Petersen A; Holmes M; Kearns A; Hill R; Edwards G; Teale C; Skov R 2015

Utility of a newly developed Mueller-Hinton E agar for the detection of MRSA carrying the novel *mecA* homologue *mecC* (letter). *Journal of Antimicrobial Chemotherapy* 70 (4) 1256-1257.

Horton RA; Randall LP; Bailey-Horne V; Heinrich K; Sharman M; Brunton LA; La Ragione RM; Jones JR 2015 Degradation of cefquinome in spiked milk as a model for bioremediation of dairy farm waste milk containing cephalosporin residues. *Journal of Applied Microbiology* 118 (4) 901-910.

Beloeil P-A; Stoicescu A-V; Mulligan K; Riolo F; Pinacho CR; Chrzastek K; Westrell T; Teale C; Korsgaard H;

Cormican M; Morris D 2015 EU Summary Report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2013. EFSA Journal 13 (2): 4036.

Hall S; Kearns A; Eckford S 2015 Livestock-associated MRSA detected in pigs in Great Britain (letter). Veterinary Record 176 (6) 151-152.

Kirchner M; Mafura M; Hunt T; AbuOun M; Nunez-Garcia J; Hu J; Weile J; Coates A; Card R; Anjum MF 2014 Antimicrobial resistance characteristics and fitness of Gram-negative fecal bacteria from volunteers treated with minocycline or amoxicillin. Frontiers in Microbiology 5:722.

Amram E; Mikula I; Schnee C; Ayling RD; Nicholas RAJ; Rosales RS; Harrus S; Lysnyansky I 2015 16S rRNA gene mutations associated with decreased susceptibility to tetracycline in Mycoplasma bovis. Antimicrobial Agents and Chemotherapy 59 (2) 796-802.

Maillard J-Y; Bloomfield S; Coelho JR; Collier P; Cookson B; Fanning S; Hill A; Hartemann P; Mcbain AJ; Oggioni M; Sattar S; Schweizer HP; Threlfall J 2013 Does microbicide use in consumer products promote antimicrobial resistance? A critical review and recommendations for a cohesive approach to risk assessment. Microbial Drug Resistance 19 (5) 344-354.

b) International conferences: 1

European Buiatrics Forum, Rome, October 2015.

<http://www.buiatricsforum.com/progsci.html>

Presentation on "The epidemiology of resistant Escherichia coli in cattle" - C. Teale

c) National conferences: 0

d) Other:

(Provide website address or link to appropriate information) 1

Production of a national annual surveillance report on the antimicrobial susceptibility of veterinary bacteria.

<https://www.gov.uk/government/publications/veterinary-antimicrobial-resistance-and-sales-surveillance-2014>

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries

To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

No

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System certified according to an International Standard?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO17025	APHAlabaccreditation.pdf

16. Is your laboratory accredited by an international accreditation body?

Yes

Test for which your laboratory is accredited	Accreditation body
Disk diffusion susceptibility test	UKAS

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

Yes

(See *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2014, Chapter 1.1.3a*)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
OIE ad hoc Group on Antimicrobial Resistance	25-27/08/2015	Paris	Rapporteur	

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

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

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Not applicable (Only OIE Reference Lab. designated for disease)

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

Not applicable (Only OIE Reference Lab. designated for disease)

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: <http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing> see point 1.3

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Detection of MRSA	4	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

Yes

Kind of consultancy	Location	Subject (facultative)
Participation in OIE Working Groups	OIE HQ, Paris	Antimicrobial resistance and usage/ sales of antimicrobials in animals

25. Additional comments regarding your report:

