bulletin

#2019-1

PANORAMA

Thematic portfolio

Controlling bovine tuberculosis: a One Health challenge

PERSPECTIVES | # DOSSIER | # AROUND THE WORLD

www.oiebulletin.com

OIE WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

PERSPECTIVES

Roadmap for zoonotic tuberculosis

A 'One Health' initiative to combat zoonotic tuberculosis

KEYWORDS

#bovine tuberculosis, #Food and Agriculture Organization of the United Nations (FAO), #International Union Against Tuberculosis and Lung Disease, #*Mycobacterium bovis*, #One Health, #Roadmap for Zoonotic Tuberculosis, #World Health Organization (WHO), #World Organisation for Animal Health (OIE), #zoonotic tuberculosis.

AUTHORS

Amina Benyahia[1], Anna S. Dean[2], Ahmed El Idrissi[3], Elisabeth Erlacher-Vindel[4], Simona Forcella[5], Paula I. Fujiwara[6], Glen Gifford[7]*, Juan Lubroth[8], Francisco Olea-Popelka[9,10] & Gregorio Torres[11]

The above people were members of a core writing team for the *Roadmap for Zoootic Tuberculosis*. See the *Roadmap for Zoonotic Tuberculosis* for a complete list of contributors.

* Corresponding author: g.gifford@oie.int

(1) Scientist, Department of Food Safety and Zoonoses, World Health Organization (WHO).
(2) Technical Officer, Global Tuberculosis Programme, World Health Organization (WHO).
(3) Senior Animal Health Officer, Food and Agriculture Organization of the United Nations (FAO).
(4) Head, Antimicrobial Resistance and Veterinary Products Department, World Organisation for Animal Health (OIE).
(5) Policy Officer, DG SANTE, European Commission, Brussels, Belgium.
(6) Scientific Director, International Union Against Tuberculosis and Lung Disease.
(7) Chargé de mission, Antimicrobial Resistance and Veterinary Products Department, World Organisation for Animal Health (OIE).
(8) Chief Veterinary Officer, Food and Agriculture Organization of the United Nations (FAO).
(9) Associate Professor, Department of Clinical Studies, College of Veterinary Medicine & Biomedical Sciences, Colorado State University, Fort Collins, Colorado, United States of America.
(10) Zoonotic TB Sub-Section, International Union Against Tuberculosis and Lung Disease.
(11) Acting Head of the Science Department, World Organisation for Animal Health (OIE).

© World Health Organization (WHO)

Zoonotic tuberculosis is a form of tuberculosis in humans that is caused by Mycobacterium bovis, a member of a group of related bacteria known as the M.tuberculosis complex. Since animals are the reservoir of zoonotic tuberculosis, reducing the incidence of this form of tuberculosis in animals and humans requires us to manage the risk at its animal source.

Global initiatives to address bovine and zoonotic tuberculosis* are coordinated through a Tripartite (FAO/OIE/WHO) partnership and the International Union Against Tuberculosis and Lung Disease (The Union) [1]. In 2017, the OIE, WHO, FAO, and The Union, jointly launched the first *Roadmap for Zoonotic Tuberculosis* [2, 3, 4, 5, 6], outlining a plan to combat zoonotic tuberculosis using a One Health approach.

The roadmap's three core themes are to:

a) improve the scientific evidence base
b) reduce transmission at the animal–human interface
c) strengthen intersectoral and collaborative approaches.

Ten priority areas are highlighted under these core themes. Addressing these areas will require: improving surveillance and diagnosis, addressing research gaps, improving animal health and food safety to reduce the risk to people, increasing awareness, fostering One Health approaches, and advocating for investment to support the control of bovine and zoonotic tuberculosis.

The OIE contributes to addressing these priority areas through its publication of harmonised international technical standards [7, 8] and related information; an extensive scientific network of Collaborating Centres and Reference Laboratories [9]; its management of a project for the production and evaluation of an international reference standard bovine tuberculin; its management of a global animal disease monitoring and reporting system, WAHIS [10]; and its development of training and capacity-building programmes for Veterinary Services.

---

* 'zoonotic TB' refers to disease caused by *M.bovis* infection in people and 'bovine TB' refers to disease caused by *M.bovis* infection in animals

http://dx.doi.org/10.20506/bull.2019.1.2910

REFERENCES

1. World Organisation for Animal Health (OIE). – Zoonotic tuberculosis.
2. World Health Organization (WHO), World Organisation for Animal Health (OIE) & Food and Agriculture Organization of the United Nations (FAO) (2017). – Roadmap for Zoonotic Tuberculosis.
3. Olea-Popelka F., Muwonge A., Perera A., Dean A., Mumford E., Erlacher-Vindel E., Forcella S., Silk B., Ditiu L., El Idrissi A., Raviglione M., Cosivi O., LoBue P. & Fujiwara P.I. (2017). – Zoonotic tuberculosis in human beings caused by *M. bovis* — a call for action. *Lancet Infect. Dis.,* Personal View, **17** (1), e21–e25. https://doi.org/10.1016/S1473-3099(16)30139-6.
4. Dean A.S., Forcella S., Olea-Popelka F., El Idrissi A., Glaziou P., Benyahia A., Mumford E., Erlacher-Vindel E., Gifford G., Lubroth J., Raviglione M. & Fujiwara P. (2018). – A roadmap for zoonotic tuberculosis: a One Health approach to ending tuberculosis. *Lancet Infect. Dis.*, **18** (2), 137–138. https://doi.org/10.1016/S1473-3099(18)30013-6.
5. Olea-Popelka F. & Fujiwara P.I. (2018). – Building a multi-institutional and interdisciplinary team to develop a zoonotic tuberculosis roadmap. *Front. Public Health*, **6** (Art 167). https://doi.org/10.3389/fpubh.2018.00167.
6. United Nations (UN) (2018). – High-Level Meeting on Ending TB, 26 September 2018, New York. UN General Assembly.
7. World Organisation for Animal Health (OIE) (2018). – Chapter 8.11. Infection with *Mycobacterium tuberculosis* complex. *In* Terrestrial Animal Health Code. 27th Edition.
8. World Organisation for Animal Health (OIE) (2009). – Chapter 3.4.6. Bovine tuberculosis. *In* Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. 7th Edition.
9. World Organisation for Animal Health (OIE). – OIE Reference Laboratories: Contact information for designated experts.
10. World Organisation for Animal Health (OIE). – World Animal Health Information Database (WAHIS) Interface.

The OIE is an international organisation created in 1924 with a mandate from its 182 Member Countries to improve animal health and welfare. Its activities are permanently supported by 301 centres of scientific expertise and 12 regional offices with a presence on every continent.

Follow the OIE: www.oie.int

@OIEAnimalHealth

World Organisation for Animal Health - OIE

OIEVideo

World Organisation for Animal Health

World Organisation for Animal Health (OIE)

Digital version: **www.oiebulletin.com**

WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

12, rue de Prony - 75017 Paris, France
Tel.: +33 (0)1 44 15 18 88 - Fax: +33 (0)1 42 67 09 87 - oie@oie.int