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04 - Veterinary control programmes

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REPORT OF THE

"BOVINE TUBERCULOSIS"

SUB-GROUP TASK FORCE

Meeting held in **Warsaw**

Poland

24-25 November 2009

REPORT OF THE MEETING OF BOVINE TUBERCULOSIS SUB-GROUP OF THE TASK FORCE FOR MONITORING ANIMAL DISEASE ERADICATION HELD IN WARSAW, 24-25 NOVEMBER 2009

Participants: see Annex I

Agenda: see Annex II.

Introduction.

The meeting was not an ordinary subgroup meeting, as Poland has achieved OTF status on January 2009. The focus was therefore on future monitoring activities, and efforts to maintain the favourable situation and eradicate bovine tuberculosis from the Polish cattle population.

Presentations

The representatives from Poland presented an overview of the history of bovine tuberculosis in Poland, the progression of the control and eradication of the disease in the country and in certain regions. The current situation, the Veterinary Authorities, current legislation and research were also presented, as well as related laboratory work and an overview of human tuberculosis in the country.

The vast majority of Poland's 5.8 million cattle are dairy cattle. More than half of the cattle herds have less than three animals. Only about 5% of the herds have more than 20 animals. In 2008, 66 cases of bovine tuberculosis were confirmed.

Some details were discussed and the subgroup had the opportunity to ask questions and learn more about the strategies, responsibilities and capacities of the Polish Veterinary Authorities. The Polish representatives welcomed the opportunity to discuss future options for monitoring and surveillance with the subgroup.

Conclusions and recommendations of the subgroup

The successful control of bovine tuberculosis in Poland is the result of long-standing efforts, experience and skill. This has resulted in the favourable situation of today and OTF status of the country.

However, there are still cases of bovine tuberculosis in the country. The chronic nature of the infection, resulting in a slowly progressing but mostly subclinical disease, means that it may spread undetected if active surveillance is too relaxed. Thus, continuous monitoring is important and should be done in various ways, such as meat inspection, wildlife surveys and tuberculin testing. Validation and follow up by various epidemiological methods as well as making sure trade does not re-introduce the disease are also important.

Meat inspection

The performance of meat inspection should be continuously validated by audit. An adequate number of submissions of suspect lesions should be ensured and a quality control system implemented. Continuous follow-up of figures on submitted lesions and laboratory results

will allow a close monitoring of both the performance of the surveillance and the TB situation.

If the veterinarians who perform meat inspections are also conducting field tests, some system to ensure that bias is not introduced in the surveillance system is necessary. Natural presumptions about the status of herds may easily influence the interpretation of observed lesions if an objective control system is not in place. This aspect should be kept in mind when organising the different parts of the monitoring system.

Moreover, the training of veterinary personnel/meat inspectors on the localisation and identification of suspect lesions and submission of samples may now be needed, taking into account that new generations of veterinarians may not be familiar with this infection.

Field tests

The performance of tuberculin testing should be quality controlled. In particular, now that a new source of PPD is used, validation studies in the national population as well as potency testing are important.

The interpretation of raw data from test results must take into account the change of tuberculin, to avoid misinterpretations. Furthermore, consideration of the testing history of animals other than reactors, and an assessment of the extent of contact with known infected (reactor) animals within the herd, along with the tuberculin test results, form an important part of the overall assessment of the TB status of the herd under investigation.

The current use of the single test as a primary test is encouraged and this practice is recommended to continue. In previously infected herds it is recommended to act on the single test results, initiate the necessary control measures without delay and not postpone such measures such as the culling of reactors and other infected animals until after the results of any confirmatory tests are known.

Figures on positive results to the single test should be recorded at national level. Due to a specificity of the test <100%, some false positive results must be expected and will be solved by complementary tests (comparative skin test, post-mortem examination). These data, when considered together, will help to evaluate the quality controls on the performance of the primary screening test.

The performance of the skin test by the private veterinarians should also be evaluated by the official veterinary services.

Epidemiological analyses of test results as well as overall figures of prevalence and incidence are valuable tools and may provide a basis for strategic use of future resources. For instance, the tuberculin testing interval could be adapted to each region/county based on prevalence and risk of infection.

If a five-year routine testing interval is introduced in the future, it becomes even more important to focus additional testing on risk herds. Experiences from Italy show that a five-year testing interval in a region with OTF status but >0% prevalence is too long. Such a long testing interval must be combined with additional measures based on risk estimates.

Guidelines and criteria to apply depopulation on infected herds are necessary at national level and should constitute the main measure to control and eradicate outbreaks in the future, taken into account the relative small size of the herds in Poland. If total depopulation of infected herds is not performed, more frequent testing in previously infected herds is necessary. This may be combined with supplementary testing such as the Interferon- γ assay. More frequent testing should also be applied in herds that have received animals from infected herds in the period since at least the last negative herd test in the infected herd. Based on wildlife surveys, more frequent testing may also be necessary in areas where there are indications of a wildlife reservoir (see below).

Moreover, the prevalence of other mycobacterial infections such as, for instance, paratuberculosis may adversely affect the performance of the tuberculin test and this should be taken into account in the analyses.

Epidemiological studies of cases

All suspect and confirmed cases of TB must be followed up with backward and forward tracing of the infection. Moreover, risk factor studies and molecular typing of all isolates will give a better overview and an opportunity to track and control the remaining foci of *Mycobacterium bovis*.

Sub-typing should be done on all old and new strains from animals (wild and domestic) as well as isolates from humans.

Further epidemiological analyses may provide the insight needed for total eradication and this opportunity must be seized.

A database for the collection and compilation of data from all different surveillance activities will facilitate epidemiological studies. Also, the continuous exchange of data between different regions as well as between the regional and central level, as a basis for regular discussions on the prevailing situation, should be facilitated.

Wildlife

Infection in wildlife (eg deer and water buffalo) has been recorded. There is a potential for wildlife reservoirs. As the infection disappears from the domestic animal population, infection in wildlife will become more important as a source for TB in farm animals and other domestic animals. The surveys that have been done in wildlife indicate that the infection is present, at least in some species in some areas.

Wildlife surveys could be done in various ways. Initially, examination of road traffic casualties and voluntary submissions from hunters is a cost-efficient method to obtain a preliminary indication of the likely overall prevalence in wildlife.

Knowledge of the density and distribution of the different wildlife species in the country may provide a basis for assumptions on their possible interactions with domestic animals. With such information, surveillance activities may be targeted and more cost-efficient.

Human tuberculosis

The two-way exchange of information about human and animal cases of *M. bovis* infection is essential for tracing of all infected individuals and preventing future human and animal cases. The likelihood that raw milk is regularly consumed by farm families and workers is a further consideration. Both legislation and continuous communication and cooperation activities must

be undertaken to achieve and sustain such an exchange. The experiences from other countries show that this is a complex and challenging task that requires continuous efforts on both sides.

The culture methods in use for suspect cases of human tuberculosis appear to be less optimal for the isolation and identification *M. bovis*. Thus, cases of *M. bovis* may be missed altogether or assumed to be caused by *M. tuberculosis*. This means that some foci of *M. bovis* may be overlooked and the infection may therefore continue to spread undetected in animals and/or humans. The inclusion of culture media that are optimal for the growth of *M. bovis* in routine diagnostics of human cases is therefore recommended.

Finally

The members of the subgroup wish to express their gratitude to their Polish hosts, congratulate them on their achievement and wish them success in their future efforts towards total eradication of bovine tuberculosis.

Annex I

Participants:

Subgroup members:

Dr Susanna Sternberg Lewerin (Chairwoman), National Veterinary Institute, SE

Dr Alice Amado, National veterinary Institute, Lisbon, PT

Prof. J.D. Collins, University College Dublin, Belfield Campus, Dublin 4, IE

Dr Margaret Good, Dept. of Agriculture, Food & Rural Development, Dublin, IE

Dr Jose Luis Saez Llorente, General Subdirection of Animal Health, M.A.R.M, ES

Dr Giorgio Zanardi, Istituto Zooprofilattico Sperimentale Lombardia e Emilia, Brescia, IT

Dr Maria Pacciarini, Istituto Zooprofilattico Sperimentale Lombardia e Emilia, Brescia,

Dr. Alicia Aranaz, TB CRL Madrid - Spain

EU Commission (DG SANCO-Unit 04):

Valentina Piazza

James Moynagh

Hosts

Janusz Związek (CVO)

Krzysztof Jazdzewski

Maciej Skowronek

Emilia Los

Marek Lipiec

Jozef Knap

Anna Duras

Mieczysław Kowalik

Bartłomiej Raj

ANNEX II

AGENDA

24 November 2009

<p>13.00</p>	<p>Powitanie i wprowadzenie Janusz Związek, Główny Lekarz Weterynarii Krzysztof Jażdżewski, Zastępca Głównego Lekarza Weterynarii</p> <p>Welcome and introduction Janusz Związek, Chief Veterinary Officer Krzysztof Jażdżewski, Deputy Chief Veterinary Officer</p> <p>Przedstawienie podgrupy gruźlicy bydła i wprowadzenie Przewodniczący podgrupy gruźlicy bydła</p> <p>Presentation of the Subgroup on Bovine Tuberculosis and introduction Chairman of the Subgroup on Bovine Tuberculosis</p>
<p>13.15</p>	<p>Struktura i organizacja Inspekcji Weterynaryjnej Krzysztof Jażdżewski, Zastępca Głównego Lekarza Weterynarii</p> <p>Structure and organization of the Veterinary Inspection Krzysztof Jażdżewski, Deputy Chief Veterinary Officer</p>
<p>13.45</p>	<p>Historia zwalczania gruźlicy bydła, program zwalczania i kontroli, epidemiologia gruźlicy bydła Emilia Łoś, Biuro Zdrowia i Ochrony Zwierząt, Główny Inspektorat Weterynarii</p> <p>The history of eradication of the TB, programme for eradication and control, epidemiology of TB Emilia Łoś, Animal Health and Welfare Office, General Veterinary Inspectorate</p>
<p>14.30</p>	<p>Korzyści wynikające z otrzymania statusu kraju wolnego od brucellozy i gruźlicy bydła. Krzysztof Jażdżewski, Zastępca Głównego Lekarza Weterynarii</p> <p>The benefits of the status of a country free of bovine brucellosis and bovine tuberculosis Krzysztof Jażdżewski, Deputy Chief Veterinary Officer</p>
<p>14.45</p>	<p>Gruźlica bydła w pierwszym półroczu 2009 roku, zmiany w zakresie badań. Emilia Łoś, Biuro Zdrowia i Ochrony Zwierząt, Główny Inspektorat Weterynarii</p> <p>Bovine tuberculosis in first half of 2009, changes in research. Emilia Łoś, Animal Health and Welfare Office, General Veterinary Inspectorate</p>
<p>15.00</p>	<p>Dyskusja</p> <p>Discussion</p>

15.15	Gruźlica bydła- prawodawstwo Przedstawiciel MRiRW Bovine tuberculosis – legislation Representat of MARD
16.00	Przerwa kawowa Coffee break
16.15	Diagnostyka laboratoryjna gruźlicy bydła. Gruźlica u zwierząt wolno żyjących Przedstawiciel PIW-PIB Puławy The laboratory diagnosis of bovine tuberculosis. Tuberculosis in wildlife animals. Representat of National Veterinary Research Institute
18.00	Dyskusja Discusion
18.30	Koniec dnia pierwszego spotkania End of the first day of meeting

25 November 2009

9.00	Gruźlica u ludzi. Diagnostyka, zwalczanie i statystyka Przedstawiciel GIS Tuberculosis in humans. Diagnosis, eradication and statistics. Representat of General Sanitary Inspectorate
10.00	Dyskusja Discusion
10.15	Zwalczanie i kontrola gruźlicy bydła na terenie województwa mazowieckiego Przedstawiciel WIW Siedlce Eradication and control bovine tuberculosis on the territory of the Mazowieckie region Representat of Regional Veterinary Inspection in Siedlce
10.45	Zwalczanie i kontrola gruźlicy bydła na terenie województwa kujawsko-pomorskiego Przedstawiciel WIW w Bydgoszczy Eradication and control bovine tuberculosis on the territory of the Kujawsko - Pomorskie region Representat of Regional Veterinary Inspection in Bydgoszcz
11.15	Zwalczanie i kontrola gruźlicy bydła na terenie województwa łódzkiego Przedstawiciel WIW w Łodzi Eradication and control bovine tuberculosis on the territory of the Łódzkie region Representat of Regional Veterinary Inspection in Łódź

11.45	Przerwa kawowa Coffee break
12.00	Spotkanie podgrupy TB Meeting of the TB subgroup
13.15	Dyskusja i podsumowanie spotkania Discussion and summary of the meeting
13.45	Obiad i koniec spotkania Lunch and end of the meeting