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REPORT ON THE

**TASK FORCE MEETING  
OF THE  
TUBERCULOSIS  
SUB-GROUP**

**GREECE, ATHENS  
15-16 OCTOBER 2001**

**REPORT OF THE**  
**SUB-GROUP OF TUBERCULOSIS TASK FORCE**  
**MEETING IN ATHENS, GREECE, 15-16 OCTOBER 2001**

**Participants:** see Annex 1

**Agenda:** see Annex 2

**Location:** Elefsina, Prefecture of West Attiki, GREECE

The Chairman Mr. Ferris opened the meeting and on behalf of the group thanked the Greek hosts for the welcome extended to the group and the organisation of the meeting.

Mr. George Koutlis, Director of the West Attiki District Veterinary Service, welcomed the group. He outlined the structure of the Greek Veterinary Services and the main areas in the region where bovine tuberculosis (Tb) was still a problem. Attiki, that is still an area of concern, is divided in East and West Prefectures. In West Attiki, where the first day meeting took place, has 3 Veterinary Offices – 2 Veterinarians in each to look after eradication programmes, namely bovine tuberculosis, bovine and sheep and goat brucellosis and also food inspection including meat inspection in local slaughterhouses.

Staffing particularly, veterinary staffing still poses major problems. However, temporary veterinary staff are employed for 8 months each year under contract but this means frequent changes in staff that requires the permanent Veterinarian to spend time training and this causes some difficulties.

The Commission represented by Mr. Ernst Stifter, outlined to the meeting the objectives of the Task Force namely to lay down methods to monitor the results of progress in eradication programmes in Member States, in particular, to determine realistic targets and to evaluate the delivery of the programme within clearly defined time limits.

Currently there are 3 Sub-groups within the Task Force, each concentrating on a different disease eradication programme, namely the eradication programmes for bovine Tb, bovine brucellosis and brucellosis in sheep and goats.

He outlined the meetings that had already taken place in Member States receiving Community funding for their eradication programmes. He also mentioned that the issue of the expense of having such visits and the benefits that have resulted had been discussed within the Commission. He outlined the number of eradication programmes to be supported by the EU for 2002. The progress in Tb eradication in other Member States with programmes in place was displayed.

Mr. Angelos Vacalopoulos presented the Greek Tb eradication programme that commenced throughout the country in 1981. In 2001 pockets of infection still exist

with over 10% of herds in some places infected. Tb prevalence in Greece is dominated by the problems in Attiki. There are also herds of unknown status that results in areas that cannot be declared officially free. In other areas, the officialy tuberculosis free (OTF) status has been suspended due to lack of test rather than the presence of Tb infection. However, Community funding is requested for the Tb eradication programme only in areas that infection is a problem, while the implementation of the programme in the other areas of the country is conducted by national funds.

Mr. Bourtzopoulos – Field Veterinarian from West Attiki, outlined the situation in his area of responsibility. These included difficulties in disposing of reactor animals because the abattoirs are not willing to buy them as the market price has collapsed due to adverse B.S.E. publicity. Thus the farmers are reluctant to co-operate with the Veterinary Services. In his area, there is also a problem with lack of personnel. The wide range of duties including the provision of clinical veterinary services that have to be performed by government veterinarians together with reluctance on the part of farmers to collaborate with the eradication programme due to poor motivation poses major problems for the eradication of bovine Tb in this Nomos. Also the use of land in the area is changing as the city of Athens expands. The high prices being paid for industrial development results in many animals being overstocked. The in-doors intensive systems for milk production also results in animals being in close contact with consequent disinfection procedures difficulties.

The U.K. delegate asked the question “what happens to farmers that do not co-operate”. In reply, the meeting was informed that the implementation of the program is enforced by law. In case of positive reactors, if the farmer do not co-operate a reduction in compensation is foreseen according to the current Ministerial Order for financial support of farmers.

Mr. Koumani, Head of the Animal Health Department in the District Veterinary Service of East Attiki, outlined the administrative and staffing problems as well as the situation of Tb in this region. The District Veterinary Service that includes the Fishery, the Veterinary Public Health and the Animal Health Departments functions with one Veterinary Officer for each of the areas. There are 4 Veterinary Offices, one of which has no Veterinary Officer and one of which has two. Temporary Veterinary Staff are also employed but this cause similar problems to those already outlined in West Attiki.

**The current problems in the delivery of the Greek programme were then outlined as follows.**

1. Number of Personnel: In the last 12 months Veterinary staff number have reduced by 24%. Only recently has the procedure to employ new Veterinarians commenced, the average age of applicants is 50 years. There are very limited technical support staff available.
2. The range of duties undertaken by the State Veterinarian is very wide as already described, in particular having to provide clinical service for herds causes particular difficulties.

3. In 1996 there were long delays in paying compensation and this has left the legacy of poor co-operation.
4. In 1999 the Dioxin problems took almost all the resources of the official Veterinary Service.
5. BSE has resulted in difficulty disposing of Tb Reactors that has been exacerbated in 2001. Isolation of infected animals is required.

The group then proceeded to visit 2 farms one, OTF and testing annually with 57 animals. The second a Tb infected herd with over 1,000 animals that were last tested in 1999 when 115 reactor animals were disclosed. Two other herds in the immediate vicinity of this farm were also Tb infected.

On returning from the field trip Mr. Angelos Vacalopoulos from the Central Veterinary Services in headquarters in Athens then presented the 2002 programme. This will concentrate on reducing the prevalence in Attiki and will look at the epidemiological factors involved. The problem in other areas in 2001 has not been as significant as that in Attiki. The herds with suspended status just require one test for restoration and this is mainly an administrative and staffing problem. The prevalence in other areas either at herd or animal level is not as high as elsewhere and can be improved. In areas with no problems the OTF status can be maintained.

The Chairman introduced the next section of the meeting by asking the members of the sub-group if they wished to clarify their understanding of the Greek eradication programme and the problems being experienced in Greece before making any recommendations. A short discussion followed, which clarified certain aspects of the Greek programme. The chairman then summarised on behalf of the sub-group that in the Greek programme there are two basic problems (1) Administrative difficulties and (2) Farmer Support.

The Greek delegation further explained that the eradication programme was drawn up within the Zoonoses Department of the Ministry for Agriculture and then is enforced not by the Ministry of Agriculture, but rather by the local Veterinary Services operating through the Prefecture administration that belongs to the Ministry of Interior Affairs. The permanent staff is supplied by the Ministry of Interior affairs and paid by the local Prefecture. The Ministry of Agriculture to help the Prefecture with the eradication and other programmes provides temporary personnel. In normal circumstances public health and eradication programmes have equal priority.

The Chairman then reflected on problems that may happen with a policy developed by one Department Division that in turn requires implementation by another Department and the fact that the Department of Zoonoses of the General Veterinary Directorate has only 4 veterinarians exacerbates co-ordination and control problems.

The U.K. delegate queried whether the staffing problem was unavailability of staff, no money to pay them or purely a political issue?

The immediate reply was that this was a political issue, which raised the question as to whether provision of Veterinary staff was a priority. There appeared also to be a difficulty as to whether the provision of staff should be the responsibility of either the Ministry of Agriculture or the Prefecture. However, a decision has been taken this

year to employ 143 prefecture Veterinarians and this is considered to be as a direct result of pressure from the Commission and recommendations from groups such as this. Also under discussion is a proposal to recruit approximately 200 Veterinarians into the Department of Agriculture by the end of 2003. The Veterinary offices in which Tb problems exist have as a priority the operation of the eradication programme.

Sweden asked of clarification on the policy of employing temporary staff for eight months. In reply the Greek delegation indicated that the long-term criteria for temporary employment is to reduce unemployment and the contracts awarded therefore must meet certain criteria and be for a limited period.

In response to Denmark Greece confirmed that Private Veterinarians are not allowed by law to participate in the eradication programmes.

The Chairman then introduced the second major problem area for discussion namely farmer co-operation which in most Member States seems to be forthcoming to varying levels.

Italy queried the practical advantage to having OTF status in Greece – for marketing or whatever and if there was there any attempt to involve the farming organisations?

It transpired that there is close association with the dairy industry and milk is not used from herds of unknown status or Tb Reactors. But there is no well-recognised farmer representative organisation to liase with.

The Chairman clarified that there is an organisation representing the milk industry and that this organisation liases with the milk processing industry on behalf of milk suppliers.

It was also clarified that milk from a Tb Reactor animal is excluded from human consumption and that the Prefective decides on the sanitary measures necessary. The milk processing industry is notified of the Tb health status of each of their supplier herds. Greece confirmed that untested herds do not supply milk for human consumption.

## **Tuesday 16<sup>th</sup> October**

Mr. Vas Stylas the General Director of the Greek Veterinary Service welcomed the group and opened the meeting looking forward to a good discussion on the eradication programme. He confirmed that there were still just a few Nomos where the level of bovine Tb infection, while although not a serious problem continued to give rise to concern. The staffing problem was well known and steps were being taken to correct this situation. In 2001 temporary staff at all levels had been employed and legislation was being prepared to permit the authorisation of private Veterinary Surgeons. He indicated that the service expected that there would still be difficulties providing Veterinarians for isolated areas such as the islands. He welcomed the expert advice of the group in formulating recommendations, which could be put forward at political level to address the difficulties encountered.

Mr. John Economopoulos gave a presentation on the public health implications of bovine Tuberculosis in Greece. He described the group with which he works which is involved in applied research methods for the rapid detection, analysis and fingerprinting of mycobacteria. This group collaborates with several institutions and companies throughout Greece. Recent work in Greece has indicated that more than 80% of Zn negative samples with histological lesions of caseous granuloma have PCR detectable mycobacteria. He indicated that there still is a high prevalence of cases of human mycobacteria within Greece especially in certain groups of the population. Currently 4-12% of human mycobacteria positive cases have been identified as *M. avium* or *M. intracellulare* mainly affecting patients with AIDS or the immigrant population.

His group also investigated Sarcoidosis and Crohn's disease cases. In Sarcoidosis 80% of sputa samples and 60-70% of FFPE samples were positive for Mycobacteria. In Crohn's disease 20-60% of fresh and FFPE samples were positive for Mycobacteria.

Mr. Economopoulos and his group considers that in Sarcoidosis and Crohn's disease the role of Mycobacteria is significant and that animal tuberculosis and environmental or food chain mycobacterial contamination are associated with a strong antigenic challenge to the human immunological response system.

With regard to tuberculosis in humans – most atypical cases are AIDS patients or within the immigrant community and have not been linked to animal contact.

Recently, environmental and food sources such as soil, water, vegetables, cheese and meat have been examined. Almost all samples have been positive for Mycobacteria.

Of samples submitted from abattoirs and sent for analysis 10% had histological evidence of caseous granulomata of which 60% were positive for *M. tuberculosis* complex and 4% were positive for the *M. avium* complex.

The delegate from Sweden queried the status of the bovine samples submitted from abattoirs. It transpired that these samples were glands from tuberculin test positive animals.

One of the Greek Veterinarians questioned the level of non-confirmation of tuberculin reactors. Mr. Economopoulos explained that he didn't carry out a full survey of tuberculin reactor samples. The Chairman Mr. Ferris went on to outline research work done elsewhere that indicated that if sufficient samples were taken in the abattoir from skin test positive reactor animals then in the majority of cases Tb can be confirmed subsequently in culture.

The question of cross reactivity or mixed infection with paratuberculosis then arose and the difficulties that arose where imported animals may have been vaccinated in the past. IFN $\gamma$  has been used over the last year to try to clarify some inconclusive situations. The Chairman, Mr. Ferris, acknowledge that this is a difficulty with tuberculin testing in a number of Member States.

Mrs. Good gave a presentation on the organisation and operation of an eradication programme. She was asked whether a decision had been made as to what was the best test for Tb. The reply was that from a general sensitivity/specificity perspective the tuberculin test was still the best test available.

Mr. Ferris requested the Greek authorities to give a brief outline of how the programme actually runs in the other Nomos where Tb is not perceived to be a problem.

Mr. Minas from the Veterinary Laboratory of Larisa looked at the standardisation of epidemiological investigation. For better optimisation of resources, precise planning and ongoing evaluation of activities, achievement and expense is required. There followed a discussion on the frequency of reports both within the country and to the EU. Spain expressed the view that the epidemiological situation should also consider the situation outside the individual herd such as contiguity or the area or regional bovine Tb prevalence.

Mr. Minas outlined the test procedure used for the diagnosis and certification in the Tb eradication programme. In the Directive 64/432EEC the tuberculin test is the only recognised test but in Greece there are "free" living animals where it is very difficult to hold the animals for the 3 days necessary to perform the skin test. Serological tests such as ELISA and IFN $\gamma$  are available which offer some advantages in that, as the animals are grouped on one day only, no further holding facilities are necessary. However, there are also some disadvantages such as the sensitivity of the ELISA test and the lack of a definitive cut-off point, the cost of the IFN $\gamma$  and the time limit to test the sample is also a consideration. However, the main problems are the legislative position of such tests and the inability to certify based on serology. Thus further research is required to determine sensitivity and specificity and the factors that can affect the performance of the test and then to adapt the legislation accordingly to allow certification.

Italy asked which antigen was being used for the ELISA test and IFN $\gamma$ ? At present in Greece only the IFN $\gamma$  is used in an Australian kit form. Italy suggested that a panel of antigens (purified) was probably the best way to use serology. The problem, he agreed however is that serology cannot be used to certify the herd under European legislation.

Sweden questioned as to why, since Greece was experiencing cross-reactivity problems using the single intradermal test, the comparative test was not used in the first instance? Greece replied that it was something that they considered in certain circumstances.

The UK said in a large trial in N. Ireland that they had found that the IFN $\gamma$  failed to detect 30% of the infected herds that were detected by the tuberculin test and the specificity of this test was also poorer than that of the tuberculin test.

The Commission said that at community level there was not a Community Reference Laboratory for brucellosis or tuberculosis and that thus there were considerable difficulties standardising such tests. He indicated that at council level it would take at least 6 months to establish such laboratories. Annex C of Directive 64/432/EEC for brucellosis will be amended shortly.

The Commission asked if the existing legal base in Greece was not sufficient to address the problems encountered?

It transpired that the transposition of Directive 97/12/EEC into Greek legislation was underway in order to introduce the concept of Private Veterinarians to carry out clinical work and to allow authorisation of Private Veterinarian involvement in the eradication programme. It also seemed to be recognised that there must be sufficient permanent staff to supervise, analyse and implement the programme. Attiki is epidemiologically the worst Tb area because of overpopulation, crowding, stress on animals, inappropriate feed, costs (including cost of removal of waste) and mostly the delay in removing reactor animals from the herds due to the limit in abattoir disposal possibilities.

Sweden question as to why the Tb eradication programme in the whole country is not the subject of funding application to EU rather than just a limited number of Nomos? The Commission also indicated that in contrast most Member States try to put as many areas as possible into a programme for funding rather than less but in such cases the results must be reported creating an additional work lead difficulty.

The UK asked what was the policy in clean Nomos was it to test a number of herds each year or to test all herds in one year and then not again for 2 or 3 years? Greece replied that in principal a number of herds were tested each year.

The Group then discussed their conclusions and the possible recommendations for Greek programme, which were summarised by the chairman as follows:

The group has concluded that there is not a significant problem with bovine tuberculosis in Greece except in certain nomos ( East and West Attiki) and particularly around Athens. A definitive evaluation of the Greek situation was not possible because screening in some area is not performed as foreseen.

The cattle population is relatively small, herd size is normally low, there appears to be only limited movement between areas and there is no other species infected to cause problems.

Staffing problems and co-operation of farmers appear to be the major difficulties encountered but the programme in Greece must not be diminished in any way.

In regard to compensation the problems of meat disposal because of BSE should be addressed and consideration should be given to perhaps purchasing reactor animals for destruction until the general meat disposal problems had improved.

The benefit of trying to get dairy industry more involved in the programme should also be considered.

In terms of staff there should be a full evaluation of what was required to efficiently operate the eradication programmes.

National eradication programmes should reflect such items as public health issues and transhumance where large numbers of animals come together in close contact.

## **Recommendations for Greek Programme**

1. To look at carrying out the comparative test as a routine in some areas where cross-reactivity is a problem in order to accelerate the process of identifying Reactors.
2. Directive 97/12/EEC implementation and Private Veterinarian involvement should be accelerated.
3. Sufficient staff including support staff e.g. technicians and resources to support the working of such staff should be determined and put in place as quickly as possible.
4. Consideration should be given to paying full compensation for Reactors to facilitate their immediate removal for destruction rather than delay removal pending development of a commercial market for the meat.
5. The development of a computerised system for the management of the control and eradication and also to analysis data should be completed and introduced as soon as possible to monitor progress of schemes.
6. Steps must be taken to address the problem of delay in completion of the sanitary measures and repeat tests in herds necessary for a herd to attain OTF status. Either penalties or incentives or a combination of both should be considered.