Animal & Plant Health Agency

Animal and Plant Health Agency
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Our Ref: ATIC2061

[redacted]
{By Email}

30 July 2020

Dear [redacted]

PROVISION OF REQUESTED INFORMATION

Thank you for your request for information on the operational instructions that apply to tb testing in deer which we received on 10 June 2020. Your request has been handled under the Freedom of Information Act 2000 (FOI).

The information you requested and our response is detailed below:

"Please could I be supplied with copies of:

1.the operational instructions that apply to the testing of deer for TB that are currently applicable, including those that apply to contiguous testing

The instructions can be found in the attached appendices 1 – 7. Please be aware that internal links to the location of the information have been redacted.

2.the operational instructions that applied to the testing of deer for TB before the change to the current version, including those that applied to contiguous testing

The requirement to test contiguous deer has been in place for a number of years and a small amendment was made in 2017 dated 01/03/2017 which extended the requirement to test contiguous deer to those deer herds which are contiguous to cattle herds with Officially Tuberculosis Free Status Withdrawn (OTFW) for any reason, not just to those with disease confirmed by bacteriological culture, i.e. isolation of *Mycobacterium bovis* in the laboratory.

3.the operational instructions regarding when it is appropriate to test whole herds of deer as opposed to a specified number less than the whole herd."

The default position is to test the entire herd, and it is the veterinary risk assessment which may determine that only some groups may be potentially excluded.

Information disclosed in response to this FOI request is releasable to the public. In keeping with the spirit and effect of the FOI and the government's Transparency Agenda, this letter and the information disclosed to you may be placed on GOV.UK, together with any related information that will provide a key to its wider context. No information identifying you will be placed on the GOV.UK website.

An Annex is attached which explains the copyright that applies to the information being released to you and contact details should you be unhappy with the service you have received.

If you have any queries about this letter, please contact the Access to Information Team at the email address below. During the current Coronavirus outbreak, our offices will be closed.

Yours sincerely

ACCESS TO INFORMATION TEAM
Email: enquiries@apha.gov.uk

Annex

Copyright
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Complaints
If you are unhappy with the service you have received in relation to your request, you may make a complaint or appeal against our decision under section 17(7) of the FOIA or under regulation 11 of the EIRs, as applicable, within 40 working days of the date of this letter. Please write to the Access to Information Manager at the address at the top of this letter or email enquiries@apha.gov.uk and the team will arrange for an internal review of your case.

If you are not content with the outcome of the internal review, section 50 of the FOIA and regulation 18 of the EIRs gives you the right to apply directly to the Information Commissioner's Office (ICO) for a decision. Please note that generally the ICO cannot make a decision unless you have first exhausted APHA's own complaints procedure. The ICO can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

Coronavirus
However, following the changes to Government advice, from Tuesday 24 March 2020 the ICO offices will be closed. They will therefore not be able to collect correspondence sent via post. Where possible, they ask that you contact them online or call on 0303 123 1113

index
Taken from: http://intranet/[redacted]

TB in Deer Overview

Background

1. Bovine TB (*Mycobacterium bovis* (*M. bovis*)) in deer is a notifiable disease. In GB deer are thought to be generally spill over hosts of bovine TB where TB occurs within the species only as long as there is input from an external source. However deer have the potential, under certain circumstances i.e. high densities, to act maintenance hosts where the infection persists by vertical, pseudo-vertical or horizontal transmission within the species, without the need for input from other species.

2. There is no routine statutory TB testing programme for deer herds in Great Britain (GB).

3. Suspicion of TB in deer of any species

~~~~~ *Background Section* ~~~~~

The Tuberculosis (Deer) Order in England and Scotland and the Tuberculosis (Wales) 2010 and Tuberculosis (Wales) 2011 in Wales cover deer of any species and does not specify any particular family, e.g. the Cervidae, and therefore has a broad scope. However, in practice, most of the provisions apply to deer in captivity, with the exception of suspect TB in the carcase of a wild deer.

~~~~ *End Background* ~~~~

(or deer carcase including park, farm and wild deer), must be notified to the local Animal and Plant Health Agency (APHA) office.

4. In England and Scotland, the Tuberculosis (Deer) Order provides the statutory powers to require testing of deer to be undertaken at the owner's expense in order to ascertain freedom from disease. In Wales, the TB testing of deer for particular disease control purposes will be funded by Welsh Government (WG).

5. The skin test is used to TB test deer. The test may only be carried out upon instruction from APHA or with prior authorisation from APHA and must be carried out by Official Veterinarians (OVs) who are appropriately qualified. The skin test may be required for one of the following reasons:

- 'diagnostic' purposes, e.g. when suspect TB lesions have been found on Post Mortem Examination (PME) of farmed or park deer, in order to check test the

herd of origin, or when TB is confirmed in cattle herds adjoining (or co-located with) deer herds
- to allow removal of movement restrictions on deer farms following disclosure of TB test reactors, clinical cases or confirmed slaughterhouse cases
- for health certification of deer for export
- check testing of imported animals
- private testing, e.g. prior to movements or sale with the permission of APHA.

6. If TB is confirmed, or if there is a strong suspicion of TB infection i.e. suspect clinical cases reported or suspect lesions found at post-mortem, movement restrictions will be imposed and will remain in place until appropriate testing or other means of surveillance have satisfied APHA there is freedom from TB.

7. Where TB testing is used to allow removal of movement restrictions following disclosure and confirmation of TB in the herd/group, two clear consecutive tests will be required at 120 day intervals. Further details on the interpretation to be used can be found in Skin Test Day Two instructions.

8. If infected deer located on a farm are identified, APHA may TB test any cattle, camelids or goats present on the breakdown premises and neighbouring premises pending a veterinary assessment.

9. Bovine TB in deer is a zoonotic disease and so where TB in deer is disclosed, APHA or Private Veterinary Surgeons (PVS) must inform the Consultant in Communicable Disease Control (CCDC) of the Local Health Authority so that any risks to human contacts can be investigated.

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Policy Overview

1. The legislative framework for TB control is laid out in Directive 64/432/EEC and enacted in GB by domestic legislation passed by the administrations in England, Scotland and Wales. This includes measures to investigate and control TB in deer.

2. Under the Tuberculosis Orders for England and Scotland, there is a statutory requirement to notify the suspected presence of TB in the carcase of any bovine or farmed or companion (pet) mammal to the Regional Veterinary Lead (RVL)/Scotland Veterinary Lead (SVL). Additionally, the Tuberculosis (Deer) Order, as amended, allows for the diagnosis and control of bovine TB in Deer in the UK.

3. Under the Tuberculosis (Wales) Order there is a statutory requirement to notify the suspected presence of TB in any carcase to the Welsh Minister. Powers for the control of TB in non-bovines in Wales (defined as deer, alpaca, guanaco, llama, vicuna and goats) are contained within the Tuberculosis (Wales) Order 2011.

4. There is evidence that applying 60 day intervals for skin testing in deer causes desensitisation of infected deer and reduced test sensitivity, therefore an expert scientific panel convened by the European Food Safety Authority (EFSA) in 2007, reviewed the available literature and, among other things, recommended that deer should be skin tested no less than 120 days after a previous test.

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Deer Identification and Registration

1. The TB (Deer) Order and the Tuberculosis (Wales) Order require that all deer on a premises must be individually identified in a manner approved by the appropriate Minister before carrying out a TB test. Additionally, all deer at least 16 weeks old and any deer carcases must be identified when moving on or off any premises.

2. Before starting a TB test in deer OVs should ensure that all deer to be tested are marked or identified in such a way that allows identification of each animal on both days of the test.

3. Deer owners/keepers should be advised to contact their local APHA office to request a deer herd mark. The APHA Sam system allocates alphanumeric herd marks to deer herds by default. Deer keepers should then order management tags bearing this alphanumeric mark plus an individual identification number. Agriculture Departments do not officially approve any particular type of tag. The tags should not carry the crown or any other logos used in the British Islands.

4. The British Deer Farms and Parks Association (BDFPA), previously named the British Deer Farmers Association (BDFA), used to keep a register of farmed deer herds. They no longer do this but there will still be deer bearing ear tags reflecting their registration with the former BDFA.

5. BDFA numbers were coded according to the country of origin and the species of deer farmed:

- S (Scotland)
- E (England)
- I (Northern Ireland)
- W (Wales).

6. The species would include:

- R (Red)
- F (Fallow)
- N (Wapiti)
- S (Sika)
- PD (PÃ¨re David).

7. Crosses would include:

- HR (Wapiti cross)
- RS (Red/Sika).

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Definitions and Interpretations

1. For guidance on definitions and interpretations, please refer to the specific legislation you are working under or use the glossary for individual definitions.

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Case Management

Overview

1. If there is a strong suspicion of TB infection i.e. suspect clinical cases reported or suspect lesions found at post-mortem, or where *Mycobacterium bovis* (*M. bovis*) infection has been confirmed in a deer herd restrictions (TD02(ES) or TN02/TN02(Welsh)) will be served and will remain in place until the Regional Veterinary Lead (RVL)/Scotland Veterinary Lead (SVL)/Veterinary Lead Wales (VLW) is satisfied that the herd is free from infection.

2. Movement restrictions can only be removed once all suspect animals (including any skin reactors) have been slaughtered and all remaining animals have undergone two consecutive comparative tuberculin skin tests with negative results at intervals of 120 days or more.

3. If the herd are park deer and skin testing is not possible, a surveillance programme at the slaughterhouse may be considered in consultation with the relevant Veterinary Advisor (VA).

4. In England and Scotland, The Tuberculosis (Deer) Order as amended provides the statutory powers to require testing to be undertaken at the owner's expense in order to ascertain freedom from disease.

5. In Wales, the TB testing of deer for particular disease control purposes will be funded by Welsh Government.

6. Alternatively, the whole herd in which *M. bovis* has been isolated may be privately slaughtered or, if the owner does not give permission to test, it will remain under permanent movement restrictions.

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Testing Programme

1. Tests may be carried out following identification of a positive *M. bovis* animal in a herd, or for other reasons such as export or post-import checks.
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2. A test on an unrestricted herd with no suspicion of TB may identify an Inconclusive Reactor (IR) or a reactor.

3. If an IR is identified in a unrestricted herd:

- serve the owner or keeper with a restriction notice. In Wales, automatic movement restrictions will apply and the keeper must be supplied with the Information Note (TN181(W)/TN181(Welsh))
- arrange isolation for the IRs
- if there has been no TB confirmed on the holding in the previous three years, then inform the owner that the local Animal and Plant Health Agency (APHA)Â will provide a restriction notice (TD02(ES) and TN02/TN02(Welsh) in Wales) for the IRs only, lifting all other restrictions
- inform the herd owner that they should arrange for a re-test of the IRs after 120 days.

4. The IR will be retested no less than 120 days after identification. If the IR remains inconclusive, it will be valued and slaughtered as a persistent IRs. Herd restriction will be served pending post-mortem and laboratory results:

- if visible lesions are found, or culture is positive, the animal will be re-classified as a reactor and the usual procedure for breakdowns will apply
- if there are no visible lesions and cultures are negative, herd restrictions may be removed.

5. If a reactor is identified:

- inform the owner of the results
- apply herd restrictions, serve a restriction notice (TD02(ES)). In Wales, automatic herd restrictions will apply and the keeper must be provided with the Information Note (TN181(W)/TN181(Welsh))
- arrange removal of the reactors and payment of compensation
- arrange isolation for the reactor(s), IR(s) and any Direct Contact(s) (DCs)
- take steps to prevent contact between their deer and any cattle on the premises and their neighbours deer or cattle
- inform the owner that manure and slurry should not be removed from the farm without written authority.

6. The remaining deer in the herd, or any co-located deer, will require two clear consecutive test at 120 day intervals following identification of a positive *M. bovis* animal. The testing programme may be limited to a specified group if the Veterinary Risk Assessment (VRA) allows this.

7. Interpretation of the test will depend on the Post Mortem Examination (PME) and culture of any reactors or report cases:

- if visible lesions (VL) are detected or a culture positive result received for *M. bovis* the test will be interpreted at severe
- in other cases the test will be carried out at standard and if reactors from that test are shown to have VL lesions the test will be re-interpreted at severe.

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

Tracings

1. Any animals that may have moved out of an infected (culture positive) herd should be spread (forward) traced and tested.

2. It is difficult to define a time window for forward tracings in the absence of any surveillance testing programme for non-bovine herds.

3. Where the infection appears to be due to the purchase of infected stock, tracing investigations should span the period since the arrival of the infected animal(s).

4. Where the presumed origin of the TB incident is lateral spread into non-bovine species from local cattle or wildlife source, then the window for spread tracings will be determined by the most likely date of exposure for the diseased animal(s), based on pathological and epidemiological findings.

5. Source tracing investigations and skin check testing of the suspected herd(s) of origin of a tuberculous animal should also be undertaken.

6. Individual animals/herds identified as spread/source (backwards) tracings from a *M. bovis* infected herd do not, in principle, need to be placed under restrictions. Requirements for testing will be considered on a case by case basis following a VRA after infection disclosure. The VRA needs to look at issues such as:

- the time of the infected animal on the premises
- situation on the farm
- trading patterns, epidemiology
- likely origin
- prevalence and severity of infection
- the premises at risk, etc.

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Action on Receipt of Results

Action on Test Results

Clear Tests

1. Where there are no Inconclusive Reactors (IRs) or reactors, inform the owner or keeper of this result and that confirmation will not be sent by the APHA office.

Reactors Disclosed (With or Without Inconclusive Reactors)

1. The tester should apply a marking tag to the animal identified as a reactor, as detailed in the Action on Identification of a Reactor instructions.

2. The owner/keeper should be:

- informed of the results
- informed that full herd restrictions apply and served with a Form A restriction notice. In Wales, automatic movement restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh))
- informed that the local APHA office will arrange for removal of the reactors and that compensation will be paid
- made aware that they should arrange isolation for the reactor(s), IR(s) and any Direct Contact(s) (DCs). Reactors should be isolated from IRs and DCs. If isolation is not possible, serve a notice requiring isolation, cleansing etc.
- informed to take steps to prevent contact between their deer and any cattle on the premises and their neighbour's deer or cattle
- informed that manure and slurry should not be removed from the farm without written authority.

Inconclusive Reactors Only

1. Serve the owner or keeper with a restriction notice. In Wales, automatic movement restrictions will apply and the keeper should be provided with a copy of the Information Note (TN181(W)/TN181(Welsh)).

2. Arrange isolation for the IRs.

3. If there has been no TB confirmed on the holding in the previous three years, then inform the owner that the local APHA office will provide a restriction notice (TD02(ES) and TN02/TN02(Welsh) in Wales) for the IRs only, lifting all other restrictions.

4.Â Inform the herd owner that they should arrange for a retest of the IRs after 120 days.

Retests of Inconclusive Reactors

1. The owner/keeper should be made aware of the following:

- if all the IRs are resolved on retest, restrictions will be removed
- if an IR becomes a reactor, serve full restrictions. In Wales, automatic movement restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh))
- if any IRs remain inconclusive, they will be valued and slaughtered as persistent IRs. Herd restriction will be served pending post-mortem and laboratory results. In Wales, automatic movement restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh))
- if visible lesions are found, or culture is positive, the animal will be reclassified as a reactor and the usual procedure for breakdowns will apply
- if there are no visible lesions and cultures are negative, herd restrictions may be removed.

Slaughter of Inconclusive Reactors before Retest

1. The owner may elect to privately slaughter the IRs before the retest and they should be made aware that no compensation will be paid in this case.

2. The owner must inform the local APHA office of their decision, so arrangements can be made to collect tissue samples for culture.

3. APHA are responsible for collection and submission of tissue samples of deer slaughtered at knackers' yards, hunt kennels and Veterinary Investigation Centres.

4. The FSA under the direction of APHA are responsible for the collection and submission of tissue samples of deer slaughtered in red meat processing slaughterhouses.

5. The owner must be made aware that they have to arrange or meat inspection if the carcase is intended for human consumption.

6. The service of herd restrictions will be determined by the status of the herd as well as the post-mortem findings:

- visible lesion (VL) or culture positive â€“ Form A restrictions will be served and remain in force until two clear consecutive herd tests under severe interpretation have taken place
- non-visible lesion (NVL), closed herd â€“ no restrictions served, pending culture results. If culture results are negative, status of the herd in 120 days is not affected

- NVL, other herd â€“ no restrictions served, pending culture results. If results are negative, the last herd test will be counted as a clear test, but this will not confer a clear status on the herd for movement purposes.

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Actions in the Office

1. If the test is clear notify the owner notified of the results and further testing requirements.

2. If reactors are identified at the test:

- arrange slaughter of the reactors and any Direct Contacts (DCs) and
- arrange a Post Mortem Examination (PME) as appropriate.

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Equipment
Taken from:
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Equipment for TB Testing Deer

Testing Equipment for Deer on Day One

1. The following equipment is required:

- disposable 1ml syringes graduated in 0.1ml and clearly identified as avian and bovine syringes
- 26G needles - these should be changed frequently because they become blunt fairly quickly
- engineer's vernier callipers

~~~~~ *Background Section* ~~~~~

There are numerous vernier callipers available on the market. Vernier callipers are intended for the engineering industry, with no equivalent vernier calliper available specifically for veterinary use. The vernier callipers may measure in 'inches' and 'mm'. The operator must ensure the setting is set to 'mm' throughout the test and the callipers are set to zero for each animal. It is recommended a replacement battery is kept within the case. The vernier callipers should be cleansed and disinfected following manufacturer's instructions.

~~~~ *End Background* ~~~~

or constant pressure callipers

  - ordinary cattle callipers and ball end callipers should not be used as they do not allow an accurate enough measurement in deer. Vernier callipers or constant pressure callipers must be:
    - calibrated to measure accurately to at least 0.5mm
    - used for all officially requested tests and
    - strongly recommended to all Veterinary Surgeons carrying out private tests
- equipment to mark the test site e.g. scissors, clippers
- marker pens to mark the test site

~~~~~ *Background Section* ~~~~~

Injection sites must be marked by clipping the hair with scissors, but where there is insufficient space, in exceptional circumstances, a marker pen can be used.

~~~~ *End Background* ~~~~

- sharps container for needles
- a supply of avian and bovine tuberculin
- tuberculin testing note book or equivalent
- cotton wool
- spirit based disinfectant (e.g. methylated surgical spirit, isopropyl alcohol)
- appropriate protective clothing
- the latest versions of official forms (available from Animal and Plant Health Agency (APHA) offices):
    - testing forms (TN52A/TN52A(Welsh)/TN52B/TN52B(Welsh)).

Testing Equipment for Deer on Day Two

1. The following equipment is required:

- engineer's vernier callipers (the same ones used in Day One)

~~~~~ *Background Section* ~~~~~

There are numerous vernier callipers available on the market. Vernier callipers are intended for the engineering industry, with no equivalent vernier calliper available specifically for veterinary use. The vernier callipers may measure in 'inches' and 'mm'. The operator must ensure the setting is set to 'mm' throughout the test and the callipers are set to zero for each animal. It is recommended a replacement battery is kept within the case. The vernier callipers should be cleansed and disinfected following manufacturer's instructions.

~~~~ *End Background* ~~~~

or constant pressure callipers

    - ordinary cattle callipers and ball end callipers should not be used as they do not allow an accurate enough measurement in deer. Vernier callipers or constant pressure callipers must be:
        - calibrated to measure accurately to at least 0.5mm
        - used for all officially requested tests and
        - strongly recommended to all Veterinary Surgeons carrying out private tests
- tuberculin testing note book or equivalent (the same one used on Day One - where appropriate)
- appropriate protective clothing
- the latest versions of official forms (available from APHA offices):
    - testing forms (TN52A/TN52A(Welsh)/TN52B/TN52B(Welsh))
    - in England and Scotland, movement restriction notices (TD02(ES)) for APHA staff only
    - in Wales, a copy of the Information Note (TN181(W)/TN181(Welsh)) which must be given to the keeper as automatic movement restrictions will apply upon disclosure of reactors or Inconclusive Reactors (IRs) in deer.

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Skin Test Day One

TB Skin Testing

1. TB testing of Deer is by the Single Intradermal Comparative Tuberculin Test (SICTT).

2. Ancillary serological tests for TB, such as the Chembio StatPak test may be appropriate in some circumstances for the improved detection of tuberculous animals in infected deer herds, in conjunction with the tuberculin skin test. Such tests have not been validated in captive deer in GB. Therefore, their use is currently voluntary, at the discretion of Animal and Plant Health Agency (APHA) in consultation with policy colleagues, on a case-by-case basis and subject to the herd owner's prior agreement to pay for this additional test and slaughter any positive animals. Regional Veterinary Leads (RVL)/Scotland Veterinary Leads (SVL)/Veterinary Leads Wales (VLW) will advise whether collection of blood samples is also required.

3. Skin tests should only be carried out at 120 day intervals.

4. TB tests are carried out on two days:

- day one - preparation of injection sites and injection of tuberculins
- day two - reading of test 72 (Â± 4) hours later.

5. The test should be applied by an Official Veterinarian (OV) with the Official Controls Qualification (Veterinary) Tuberculin Testing (OCQ (V) TT).

6. Other than in exceptional circumstances, the complete tuberculin test must be carried out by the same person to prevent compromise to the test interpretation.

7. Skin measurements must always be taken using the same set of callipers on both test days.

Test Procedure

1. All deer must be identified on a premises prior to carrying out any tests for TB. Before starting the test, check the deer are individually marked or identified to allow identification on the second day of the test. Enter its identification number in the testing record together with description of age, sex and species.

2. Refer to current legislation for requirements and means of identifying deer.

3. Advise deer owners/keepers to contact their local APHA office to request a deer herd mark. APHA will allocate an alphanumeric mark to deer herds.

4. When presented with unmarked animals during testing, the animal should only be tagged with one of the herd owner's own approved tags bearing the official herd mark.

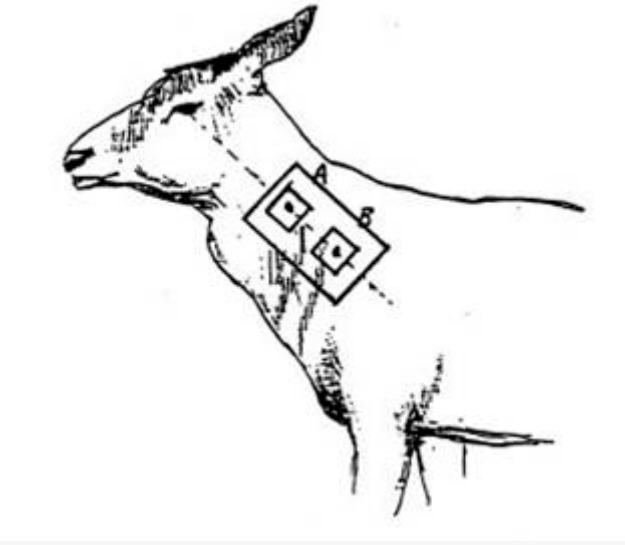
5. The OV/Veterinary Officer (VO) must inform the APHA office if ID issues are identified and the owner should be instructed to permanently mark all animals within 14 days and to confirm in writing that this has been done. Failure to do so is an offence.

6. Advise the owner/keeper that for the purposes of ear marking of deer, only approved tags should be used.

Test Technique

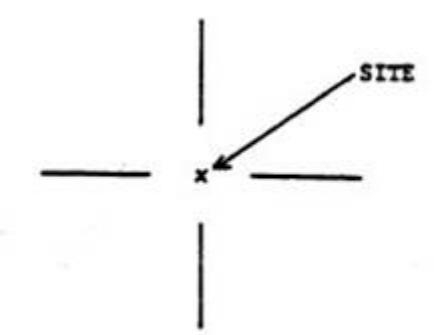
1. Deer are injected in the cervical region, both sites on one side, unless the deer is of such a size that sites are used on each side of the neck.

2. Both sites should be in the middle third of one side of the neck, the anterior site being at least 100mm behind the head and the posterior site approximately 130mm from the other and at an angle as indicated in the following diagram:



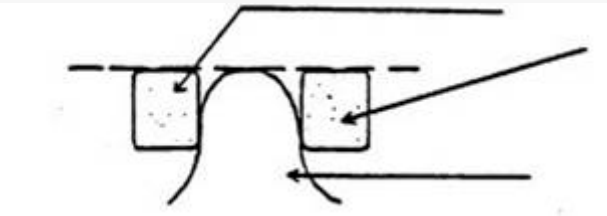
3. In very young deer, or in some of the smaller species, where there is insufficient room to separate the sites sufficiently on one side of the neck, use the left side of the neck for avian tuberculin and the right for bovine tuberculin.

4. Clip the hair to mark the injection sites, but where there is insufficient space, in exceptional circumstances, a marker pen can be used as shown in the following diagram:



5. Raise a fold of skin at each site, measure with the callipers and record the measurements to the nearest millimetre (or the smallest division in the calliper's measuring scale) in the testing record. The calliper jaws should be aligned with the fold of skin as shown in the following diagram:

Callipers



Skin

6. Disposable 1ml syringes graduated 0.1cc and fine needles 26G needles should be used. McLintock syringes are not appropriate for testing deer. The syringes to be used for avian tuberculosis should be marked with red tape.

7. Syringes and needles must be sterile before injecting tuberculin. To meet this requirement:

- wipe the needle between animals with cotton wool moistened with spirit, e.g. surgical spirit or isopropanol
- keep the cotton wool damp with spirit and replace it when it becomes soiled
- replace the cotton wool at the beginning of every TB test in each herd.

8. Use the upper site for avian tuberculin. Draw 0.1ml of tuberculin into the appropriate syringe. Insert the 26G needle with the bevel edge outwards obliquely into the prepared area.

9. Make the injection of 0.1ml of the appropriate tuberculin so that it is lodged intradermally and check that a pea-like nodule is palpable.

10. If such a nodule is not present and it is likely that the tuberculin has been injected subcutaneously, a further injection should be made 8 to 10cm away (3 to 4 inches) from the original site.

11. During testing it is important that needles should be changed frequently as they can become blunt very quickly.

12. Owners or keepers are required to assist during a TB test. If it is not possible to carry the test out satisfactorily, the test report should be annotated accordingly.

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Administration of Medicines

1. There is no legal authority to prevent the administration of medicines during a tuberculin test.

2. Unless treatment is required for welfare reasons, Veterinary Officers (VOs)/Senior Veterinary Inspectors (SVIs)/OVs should discourage the owner from administering medicines to the animals being tested until the result of the test has been read and confirmed as clear at 72 hours.

3. Administration of drugs may interfere with the response to the test. If drugs have been administered, it should be noted on the test report forms (TN52A/TN52A(Welsh)/TN52B/TN52B(Welsh)).

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[redacted]

Clinical Inspections and Examinations in Deer

1. The Tuberculosis (Deer) Order and the Tuberculosis (Wales) Order provide the necessary powers to carry out clinical examinations and inspections of deer during a TB test. It is good veterinary practice to carry out a visual inspection of all animals tested at every tuberculin test, to identify any animals showing clinical signs of TB or any other notifiable disease.

2. Check the animal to look for any swelling which might indicate tuberculous fistulae. Additionally, a clinical examination of any suspected animals should be carried out. This includes reactors, Inconclusive Reactors (IRs), emaciated animals, etc. and any animals showing any evidence of clinical tuberculosis. The TB Orders require a veterinary inspector to notify the relevant Ministers immediately that there is suspicion that a non-bovine animal (including deer) is, or may be, affected with bovine TB.

~~~~~ *Background Section* ~~~~~

The Tuberculosis (Deer) Order and the Tuberculosis (Wales) Order **do not** prescribe that animals undergoing TB testing have to be clinically inspected or examined, although there are powers for veterinary inspectors to do so. While clinical inspections or examinations of deer undergoing TB testing are not currently included in contractual agreements between APHA and OVs, clinical inspection of deer is recommended good veterinary practice and also part of the assessment of an animal's response to tuberculin on day two of the test.

~~~~ *End Background* ~~~~

3. Owners or keepers are required to assist during the clinical examination. If it is not possible to carry the test out satisfactorily, the test report should be annotated accordingly.

4. Certify this inspection and report the result of any examinations on the test report (TN52A/TN52A(Welsh)/TN52B/TN52B(Welsh))/blood sample form.

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~

Skin_Test_Day_Two
Taken from:
http://intranet/[redacted]

Skin Test Day Two

Day Two Reading Actions

1. Read the test at 72 (Â± 4) hours after the initial injection of tuberculin.

2. Confirm the identity of the animal against the testing record from day one so that reference can be made to the initial skin measurements and a proper interpretation of the test made.

3. Carefully examine, palpate and re-measure the fold of skin with callipers at every injection site. The calliper jaws should be aligned with the fold of the skin as shown in the following diagram. Record the measurements to the nearest millimetre (or the smallest division in the calliper's measuring scale) on the testing record, along with a description of the type of reaction observed, if any.

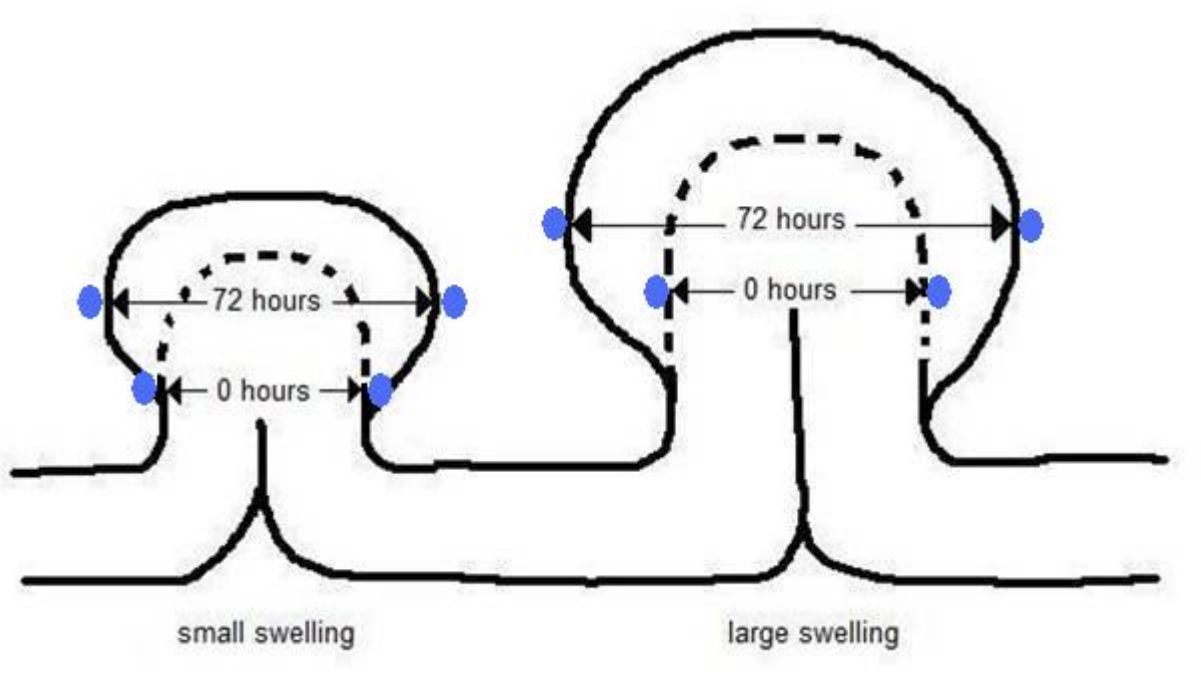
~~~~~ *Background Section* ~~~~~

Due to the thinness of the skin and the often minimal skin reactions it is essential to measure every injection site regardless of the result of the palpation in order to reduce any loss of diagnostic sensitivity.

~~~~ *End Background* ~~~~

4. To have a comparative reading between first and second day of the test the fold of skin must be raised in the same plane on both days and the callipers placed at right angles to the fold of skin on both days.

5. If a swelling is present on the second day, raise the skin fold so any swelling is at the top of the skin fold and measure the swelling at the widest point with the callipers in the same plane as on the first day as in the diagram below.



~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

~~~~~~~~~~~~~~~ *Start Generic Section* ~~~~~~~~~~~~~~~

[redacted]

Interpretation of Results

1. A clinical examination of any suspected animals should be carried out. This includes reactors, Inconclusive Reactors (IRs), emaciated animals, etc. and any animals showing any evidence of clinical tuberculosis.

2. The reaction is the increase in skin thickness at 72 hours following the intradermal injection of tuberculins.

3. Pay close attention to the character of the swelling, particularly to the presence of oedema. It is important to distinguish between a skin swelling that constitutes a reaction and any small skin swelling caused by the injection. If you are in any doubt about the nature of the reaction, discuss with the Regional Veterinary Lead (RVL)/Veterinary Lead (VL) before interpreting results.

4. Record any skin swellings which show an increase of more than 2mm as positive reactions, as should any swelling, irrespective of size, showing oedema. The test interpretation and decision on whether such an animal is a reactor depends on the difference between the reactions to the avian and bovine tuberculins.

5. For the purpose of describing reactions to the test in the testing record (TN52A/TN52A(Welsh)), use the following abbreviations:

- C = Circumscribed - a discrete non-oedematous reaction
- SO = Some Oedema - any reaction where oedema is present
- + = Positive i.e. an increase of more than 2mm in skin thickness **or any reaction with oedema**
- - = Negative i.e. an increase of 2mm or less in skin thickness **with no oedema**.

6. Record the test results using the test report forms (TN52A/TN52A(Welsh) and TN52B/TN52B(Welsh)). These results should be retained for 12 months.

7. A manuscript report should accompany the test chart in the following circumstances:

- if an IR from a previous test is not retested. Reason for omission should be recorded and if the animal has been disposed of, date and manner of disposal should be recorded
- when it is impracticable to carry out a clinical examination of reactors or IRs
- when records or animal IDs are unsatisfactory, detailing the apparent deficiencies
- death or injury of animals during a test.

8. The interpretation and decision on whether such an animal is a reactor is dependent on the comparative reactions (both character and size) to the avian and bovine tuberculins.

9. The RVL/Scotland Veterinary Lead (SVL)/Veterinary Lead Wales (VLW) will advise whether to use standard or severe interpretation.

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

~~~~~~~~~~~~~~~ *Start Generic Section* ~~~~~~~~~~~~~~~

[redacted]

Standard Interpretation

1. Standard interpretation is used for:

- herds with no recent history of TB
- herds with no evidence of infection at the Post Mortem Examination (PME)/Post Mortem Inspection (PMI) of recently disclosed reactors
- Inconclusive Reactor (IR) retests.

2. The reaction is positive if any oedema (fluid) is present or there has been an increase in skin thickness of more than 2mm.

3. A reactor is any animal showing a positive bovine reaction and a negative avian reaction or, where both bovine and avian reactions are positive, the bovine reaction is more than 2mm greater than the avian reaction.

4. An Inconclusive Reactor (IR) is any animal showing a positive reaction to both bovine and avian tuberculin where the bovine reaction is equal to, or no more than, 2mm greater than the avian reaction.

5. An animal passes the test when the bovine reaction is negative irrespective of the avian reaction or, where both bovine and avian reactions are positive, the avian reaction is greater than the bovine reaction.

6. In the light of post-mortem evidence i.e. finding of visible lesions, the test may be re-interpreted using the severe interpretation. Ensure that the owner is aware of this and that they understand that the result may change.

Reaction	**Results at Standard Interpretation**
Deer showing a negative bovine reaction irrespective of the avian reaction	Pass Retain
Deer showing a positive bovine reaction which is less than the avian reaction	
Deer showing positive bovine and avian reactions, where the bovine reaction is equal to (or no more than 2mm greater than) the avian reaction	Inconclusive Reactor (Re-test)
Deer showing a positive bovine reaction and a negative avian reaction, or, where both bovine and avian reactions are positive, the bovine reaction is more than 2.0mm greater than the avian reaction.	Fail Reactor (Remove)

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

~~~~~~~~~~~~~~~ *Start Generic Section* ~~~~~~~~~~~~~~~

[redacted]

Severe Interpretation

1. This should only be used on instruction from the Regional Veterinary Lead (RVL)/Scotland Veterinary Lead (SVL)/Veterinary Lead Wales (VLW) and will be applied in all herds in which *M. bovis* infection has already been confirmed by laboratory culture. It is also used to re-interpret a previous test initially read at standard interpretation if TB is confirmed in any of the reactors at post mortem.

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

2. Instructions on how to apply a severe interpretation of the comparative tuberculins skin test will be provided by the RVL/SVL/VLW.

3. A reactor is any animal showing a positive bovine reaction and a negative avian reaction or, where both bovine and avian reactions are positive, the bovine reaction is equal to or greater than the avian reaction.

4. An IR is any animal showing positive reactions to both bovine and avian tuberculins where the bovine reaction lies in the range from 0.5mm to 2mm less than the avian reaction.

5. An animal passes the test when the bovine reaction is negative irrespective of the avian reaction or, where both bovine and avian reactions are positive, the avian reaction is more than 2mm greater than the bovine reaction.

Pass (Retain)	Deer showing a negative bovine reaction irrespective of the avian reaction
	Deer showing positive bovine and avian reactions, where the avian reaction is more than 2mm greater than the bovine reaction
Inconclusive Reactor (Re-test)	Deer showing positive bovine and avian reactions, where the bovine reaction is in the range of 0.5mm to 2mm less than the avian reaction
Fail Reactor (Remove)	Deer showing positive bovine and negative avian reactions or, where both are positive, the bovine reaction is equal to or greater than the avian reaction.

Summary
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<table>
<tr><th>Standard Interpretation</th><th colspan="3">Skin Reactions</th><th>Severe Interpretation</th></tr>
<tr><td>A positive reaction is an increase of >2mm or oedema</td><td colspan="3">-</td><td>A positive reaction is an increase of >0.5mm or oedema</td></tr>
<tr><td rowspan="3">PASS</td><td colspan="2">A+</td><td>B-</td><td rowspan="2">PASS</td></tr>
<tr><td>A+</td><td>2mm+</td><td>>B+</td></tr>
<tr><td>A+</td><td>0.5-2mm</td><td>>B+</td><td>INCONCLUSIVE REACTOR</td></tr>
<tr><td rowspan="2">INCONCLUSIVE REACTOR</td><td>A+</td><td>=</td><td>B+</td><td rowspan="4">REACTOR</td></tr>
<tr><td>A+</td><td>Up to 2mm</td><td><B+</td></tr>
<tr><td rowspan="2">REACTOR</td><td>A+</td><td>2mm+</td><td><B+</td></tr>
<tr><td colspan="2">A-</td><td>B+</td></tr>
</table>

~~~~~~~~~~~~~~~ *Start Generic Section* ~~~~~~~~~~~~~~~

[redacted]

Recording and Submission of Test Results

1. Submit completed test report forms (TN52A/TN52A(Welsh)/TN52B/TN52B(Welsh)) for each complete or part test carried out without delay.

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

~~~~~~~~~~~~~~~ *Start Generic Section* ~~~~~~~~~~~~~~~

[redacted]

Service of Restrictions
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1. Where reactors or IRs are disclosed and if the herd is not already under movement restrictions, APHA will serve restriction notices (TD02(ES)). In Wales, automatic movement restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh)).

2. Restrictions will remain in place until the Regional Veterinary Lead (RVL)/Scotland Veterinary Lead (SVL)/Veterinary Lead Wales (VLW) is satisfied that the herd is free from infection.

3. OVs should verbally inform the owner that reactors or IRs have been identified, they must be isolated from the rest of the herd and that full herd movement restrictions apply (or continue to apply). Inform the local APHA office who will then serve restrictions. In Wales, automatic restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh)).

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

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[redacted]

Action on Test Results

Clear Tests

1. Where there are no Inconclusive Reactors (IRs) or reactors, inform the owner or keeper of this result and that confirmation will not be sent by the APHA office.

Reactors Disclosed (With or Without Inconclusive Reactors)

1. The tester should apply a marking tag to the animal identified as a reactor, as detailed in the Action on Identification of a Reactor instructions.

2. The owner/keeper should be:

- informed of the results
- informed that full herd restrictions apply and served with a Form A restriction notice. In Wales, automatic movement restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh))
- informed that the local APHA office will arrange for removal of the reactors and that compensation will be paid
- made aware that they should arrange isolation for the reactor(s), IR(s) and any Direct Contact(s) (DCs). Reactors should be isolated from IRs and DCs. If isolation is not possible, serve a notice requiring isolation, cleansing etc.
- informed to take steps to prevent contact between their deer and any cattle on the premises and their neighbour's deer or cattle

- informed that manure and slurry should not be removed from the farm without written authority.

Inconclusive Reactors Only

1. Serve the owner or keeper with a restriction notice. In Wales, automatic movement restrictions will apply and the keeper should be provided with a copy of the Information Note (TN181(W)/TN181(Welsh)).

2. Arrange isolation for the IRs.

3. If there has been no TB confirmed on the holding in the previous three years, then inform the owner that the local APHA office will provide a restriction notice (TD02(ES) and TN02/TN02(Welsh) in Wales) for the IRs only, lifting all other restrictions.

4.Â Inform the herd owner that they should arrange for a retest of the IRs after 120 days.

Retests of Inconclusive Reactors

1. The owner/keeper should be made aware of the following:

- if all the IRs are resolved on retest, restrictions will be removed
- if an IR becomes a reactor, serve full restrictions. In Wales, automatic movement restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh))
- if any IRs remain inconclusive, they will be valued and slaughtered as persistent IRs. Herd restriction will be served pending post-mortem and laboratory results. In Wales, automatic movement restrictions will apply and the keeper must be provided with a copy of the Information Note (TN181(W)/TN181(Welsh))
- if visible lesions are found, or culture is positive, the animal will be reclassified as a reactor and the usual procedure for breakdowns will apply
- if there are no visible lesions and cultures are negative, herd restrictions may be removed.

Slaughter of Inconclusive Reactors before Retest

1. The owner may elect to privately slaughter the IRs before the retest and they should be made aware that no compensation will be paid in this case.

2. The owner must inform the local APHA office of their decision, so arrangements can be made to collect tissue samples for culture.

3. APHA are responsible for collection and submission of tissue samples of deer slaughtered at knackers' yards, hunt kennels and Veterinary Investigation Centres.

4. The FSA under the direction of APHA are responsible for the collection and submission of tissue samples of deer slaughtered in red meat processing slaughterhouses.

5. The owner must be made aware that they have to arrange or meat inspection if the carcase is intended for human consumption.

6. The service of herd restrictions will be determined by the status of the herd as well as the post-mortem findings:

- visible lesion (VL) or culture positive â€“ Form A restrictions will be served and remain in force until two clear consecutive herd tests under severe interpretation have taken place
- non-visible lesion (NVL), closed herd â€“ no restrictions served, pending culture results. If culture results are negative, status of the herd in 120 days is not affected
- NVL, other herd â€“ no restrictions served, pending culture results. If results are negative, the last herd test will be counted as a clear test, but this will not confer a clear status on the herd for movement purposes.

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

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[redacted]

Action on Identification of a Reactor

1. Marking tags should be applied to animals identified as reactors at Day Two of the test on premises located in England and Wales. DNA tags as used for cattle should be applied but there is no requirement to collect a sample capsule. Ensure that:

- the applicator and tag are free from visible contamination
- the ear tags appear to be undamaged and that both parts carry the same number
- the ear is free from visible contamination
- the ear tag is inserted into the ear avoiding other tags, using good and safe practice and in accordance with the manufacturer's instructions (included within the tags), either ear can be used. The tag can be placed in an existing hole in the ear
- if the tag becomes damaged and cannot be applied, use a new tag
- the number of the marking tag is recorded on the test chart (TN52A/TN52A(Welsh)/TN52B/TN52B(Welsh))

2. No sample capsule is required and no sample must be submitted.

3. A tag must not be applied if access to the ear is not safe. If applicable this must be noted on the test chart.

4. There will be occasions when reactors will be identified after Day Two (TT2) of the skin test. In those cases, Official Veterinarians (OVs) are not required to undertake specific visits to apply a tag.

index
Taken from: http://intranet/[redacted]

Skin Test Overview

Overview

1. There is no routine TB testing programme for surveillance of TB in Deer in Great Britain (GB).

2. Regional Veterinary Leads (RVLs)/Scotland Veterinary Leads (SVLs)/Veterinary Leads Wales (VLW) have powers to enforce TB testing of any deer for disease control purposes.

3. Official Veterinarians (OVs) who have Official Controls Qualification (Veterinary) Tuberculosis Testing (OCQ (V) TT) may carry out TB testing in deer. Testing must be conducted on the authorisation of the RVL/SVL/VLW.

4. There is no requirement to apply withdrawal periods for the use of meat and milk in deer following the use of tuberculin for skin testing.

~~~~~ *Background Section* ~~~~~

Tuberculin has a zero withdrawal period for meat and milk within the target species (bovines) and therefore Veterinary Medicines Directorate (VMD) made the decision in February 2011 that a zero withdrawal may also apply to the use of tuberculin off label by the cascade in non-bovines.

~~~~ *End Background* ~~~~

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

~~~~~~~~~~~~~~~ *Start Generic Section* ~~~~~~~~~~~~~~~

[redacted]

Private Testing

1. Private tuberculin skin test of deer herds (or individual animals) of unknown TB status at the owner's request can be permitted, provided that the owner is willing to pay an OV to perform the test. Owners must be made aware of the repercussions of a positive test result, e.g. herd restrictions.

2. The OV should:

- be an OV holding OCQ (V) TT

- contact the APHA office in advance to seek clearance to carry out the test
- inform APHA of the date and premises on which the test will be carried out and the approximate number of deer to be tested
- inform APHA of the results of the test by submission of a test chart (TN52A/TN52A(Welsh) and TN52B/TN52B(Welsh)).

3. RVL/SVL/VLW approval is required because:

- TB is a notifiable disease of deer
- tuberculin is a licensed veterinary medicine supplied by APHA
- the animal may be part of an infected herd and animals tested with tuberculin cannot be retested within a 120 day period.

4. APHA will supply the tuberculin free of charge.

5. Once the test has been completed, the test results for each animal tested (TN52A/TN52A(Welsh) and TN52B/TN52B(Welsh)) must be submitted immediately, clearing indicating the reason for the test.

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~

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[redacted]

Administration of Medicines

1. There is no legal authority to prevent the administration of medicines during a tuberculin test.

2. Unless treatment is required for welfare reasons, Veterinary Officers (VOs)/Senior Veterinary Inspectors (SVIs)/OVs should discourage the owner from administering medicines to the animals being tested until the result of the test has been read and confirmed as clear at 72 hours.

3. Administration of drugs may interfere with the response to the test. If drugs have been administered, it should be noted on the test report forms (TN52A/TN52A(Welsh)/TN52B/TN52B(Welsh)).

~~~~~~~~~~~~~~~ *End Generic Section* ~~~~~~~~~~~~~~~
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