**Schedule 11: Tuberculosis Testing Procedural Instructions**

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**Conditions for performance of the Single Intradermal Comparative Cervical Tuberculin Test by Approved Veterinary Surgeons**

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**Summary of Schedule 11**

As an important Contractor of the Department you must be aware of the professional, ethical and legal responsibilities you are required to maintain. These are detailed for the performance of the TB test in Schedule 11. A summary of these is contained below (Bold Type indicates direct EU legislative requirement – the quotation from the Animal Health Law (2016/429)

**You Must**:

1. Complete all work done to the highest standards of transparency and confidentiality, and to a standard ensuring it is above public criticism.
2. Organise all work done with proper notification to the Authority and to the Customer.
3. Maintain records in relation to the performance of these tasks. These will be subject to audit and considered as part of the performance management framework.
4. Demonstrate professional standards in relation to your standards and behaviour. You must demonstrate the required standards in relation to Animal Welfare and Disease prevention – for example in relation to animals which are suffering unnecessarily or are in distress you must take the appropriate action; in relation to cleansing and disinfection and measures to prevent all disease spread (including bovine TB– onto and off the holding).
5. Test all animals present on the holding, regardless of ownership, whether recently moved on or moving to slaughter imminently.
6. Ensure that all animals to be tested are tagged in accordance with the legal requirements and you have a requirement to ensure that this is completed before testing each animal.
7. Contact your local DVO manager where serious issues are found or where you are in doubt in relation to your responsibilities. Discuss the query, following direction as required.
8. Clip sites for each injection so they are clean and ensure hygienic injection, accurate measurement and identification of reactions.
9. Perform intradermal injections using the prescribed equipment, which is maintained to a high professional standard and calibrated as required to ensure that the dose of tuberculin is 0.1ml per injection site.
10. Only use tuberculin supplied by the Authority. Store and use this tuberculin as prescribed.
11. Comply with the European Standards **“The injection sites shall be situated at the border of the anterior and middle thirds of the neck. When both avian and bovine tuberculins are injected in the same animal, the site for injection of avian tuberculins shall be about 10 cm from the crest of the neck and the site for the injection of bovine tuberculin about 12.5 cm lower on a line roughly parallel with the line of the shoulder or on different sides of the neck; in young animals in which there is not room to separate the sites sufficiently on one side of the neck, one injection shall be made on each side of the neck at identical sites in the centre of the middle third of the neck.”** Note it is DAERA policy that to allow for times when reinjection is required, assessment will allow and expect sites to be no further caudal than the middle third of the neck.
12. **“A fold of skin within each clipped area shall be taken between the forefinger and thumb and measured with callipers and recorded. The dose of tuberculin shall then be injected by a method that ensures that the tuberculin is delivered intradermal. A short sterile needle, bevel edge outwards, with graduated syringe charged with tuberculin, inserted obliquely into the deeper layers of the skin may be used. A correct injection shall be confirmed by palpating a small pea-like swelling at each site of injection. The skin-fold thickness of each injection site shall be remeasured 72 hours (± 4 hours) after injection and recorded.**
13. **The interpretation of official intradermal tuberculin tests shall be as follows:**

**Intradermal comparative test for the establishment and maintenance of officially tuberculosis-free herd status:**

**(a) positive: a positive bovine reaction which is more than 4 mm greater than the avian reaction, or the presence of clinical signs;**

**(b) inconclusive: a positive or inconclusive bovine reaction which is from 1 to 4 mm greater than the avian reaction, and the absence of clinical signs;**

**(c) negative: a negative bovine reaction, or a positive or inconclusive bovine reaction but which is equal to or less than a positive or inconclusive avian reaction and the absence of clinical signs in both cases.**”

1. DNA tag Positive Reactors
2. Notify the keeper that the final interpretation of the test is at the discretion of the Department and that this result will be only confirmed once written evidence is received.
3. Keep secure and available to the Authority all copies of documentation related to the performance of the test: field BT15, BT23, along with supporting documents if necessary.
4. Keep copies of records relating to arrangements and cancellation of tests, storage, use and disposal of tuberculin.
5. Field audits will be carried out in relation to the detailed compliance with Schedule 11 and these will be unannounced. Low risk (random supervisions) will be announced as detailed in Schedule 1. Contractors should carry out annual in-house training and supervision of all veterinarians employed as Approved Veterinary Surgeons to the proforma contained in Schedule 7 Annexes 6 and 7, and ensure staff are aware of their contractual obligations and ethical responsibilities in the performance of their duties.
6. For Private Tests: In all cases permission must be sought and received in advance from the Authority. The results of all animals tested must be reported within one working day. The test shall be interpreted so that no animal which shows an increase in skin-fold thickness greater than 2 mm or the presence of clinical signs is entered into intra-Community trade.

**BOVINE TUBERCULOSIS**

## THE SINGLE INTRADERMAL COMPARATIVE CERVICAL TUBERCULIN TEST

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1. **Notification**
	1. Herd keepers should be notified of the proposed date and time of the test.

* 1. In an emergency, tests may be arranged by telephone or otherwise (including by electronic means) and confirmed by BT13.
	2. The local DV Office must be advised in writing or via the NIFAIS PVP-extranet of the agreed time and date by Wednesday of the week prior to the start of the test. Tests should be arranged on NIFAIS by 17.00 hrs on the Wednesday of the week prior to the test.
	3. Notifications from a practice must indicate for each test, the computer code of the Approved Veterinary Surgeon (AVS) who will carry out the test, the herd number, the herd keeper’s name and address and the date and time agreed.
	4. In the case of tests arranged, rearranged, cancelled, start time changed or AVS changed at short notice the DV Office must be advised by updating the electronic interface within 1 working day and in all cases before the test has commenced.

# 2. Personal disinfection

2.1 It is most important that an AVS or an Inspector, and by implication the Department of Agriculture, Environment and Rural Affairs (DAERA), should be above criticism with regard to the possibility of spreading disease in the course of movement from farm to farm. Cleansing and disinfection must be carried out at every visit, as described below

2.2 When an AVS or an Inspector arrives on any premises where the intention is to carry out any official duties including tuberculin testing, they must ensure that they are wearing clean waterproof protective clothing. It is not acceptable to arrive on farm with unhygienic protective clothing or footwear.

2.3 Waterproof rubber boots, waterproof clothing and any equipment such as PDAs, head ropes *etc* must be washed and disinfected on entering and before leaving any premises and this should preferably be carried out in the presence of the herd keeper or his representative.

2.4 A disinfectant currently approved for TB control must be used at the correct dilution for killing *M. bovis*. Reasonable consideration will be given where a disinfectant is used which has recently been approved (during the previous 6 months). The list of approved disinfectants against *M. bovis* can be found on the DAERA website at:

[*https://www.daera-ni.gov.uk/publications/approved-disinfectants*](https://www.daera-ni.gov.uk/publications/approved-disinfectants)

2.5 Disinfectant should be stored, carried and used in accordance with H+S requirements and be in its original labelled container to allow verification. There should be a measuring vessel or equivalent system in place to ensure that correct dilution is used. They must carry a bucket and also a brush capable of dislodging all manure and other debris from the soles of their boots prior to leaving the premises. The bucket, the disinfectant and the brush used should all be available for inspection

2.6 If, for any reason, an AVS or an Inspector chooses not to wear waterproof clothing, they must wear clean clothing on each separate farm business..

2.7 **Outfarms**: When the test involves visits to outfarms the tester and his/her assistant should cleanse and disinfect entering and leaving each outfarm if possible.

2.8 **Professional and Lay Assistants**: An AVS or an Inspector making an official visit to any premises must ensure that any professional or lay assistant who accompanies him/her likewise observes all the above hygienic precautions.

# 3. Tuberculin Tests

##  DVO permission needed for tuberculin tests

No bovine or other animal may be tested with tuberculin except with the prior consent of the Divisional Veterinary Officer (DVO) in whose area the herd is registered. Such consent will not be granted if the person proposing to carry out the test is not officially approved as an AVS.

***3.2 Permission for private check tests***

Consent for tests carried out in a private capacity will be subject to the submission of the official ear tag identification numbers of the animals to be tested to the DV Office verbally or in writing before the test commences (see section 17). These written details may be provided electronically *via* the NIFAIS PVP extranet.

# 4. Herd Keeper’s Obligations

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## 4.1 Presenting all cattle

4.1.1 The AVS or Inspector is required, unless otherwise authorised by the Department (*e.g.* where only specified animals are to be tested), to ensure that all eligible animals presented to him are tested.

4.1.2 If animals from other herds are found on the holding under circumstances which will allow for the transmission of disease (*e.g*. contract housing, shared housing, shared grazing or animals which belong to a herd in the Republic of Ireland for which the herd keeper is responsible), they should also be presented for identification and testing.

4.1.3 The AVS or Inspector must record the total numbers and classes of any other eligible animals on the holding which were not tested on the header page of Form BT15, or on a PDA, and report the facts to a Veterinary Officer/Inspector (VO/VI) within the local DV Office by telephone as soon as possible.

##  Safe performance of test

4.2.1 Keepers of cattle are required to provide facilities that, in the opinion of the AVS or Inspector, are adequate to ensure both the safety of persons involved in official testing and that of the animals being tested.

4.2.2 A test should not be commenced/continued where it is/becomes evident that it cannot be carried out accurately, safely and without unreasonable delay. An attempt should be made to persuade the herd keeper to resolve any problem encountered which compromises health and safety. If this is not successful, the test should be abandoned and the BT15 forms should be returned to the DV Office with a written explanation of the problem, the action taken by the AVS or Inspector and the herd keeper’s response.

##  Completion of BT15 header sheet declaration

## The herd keeper or a person representing him must confirm in writing, that all eligible animals in the herd have been presented at the test, by signing the BT15 header sheet in the appropriate place. The printed BT15 header sheet should be countersigned by the AVS or Inspector retained in the practice office for at least 3 years and must be submitted to the DVO upon request. There is no longer a requirement to submit them to the local DVO to process payments. The completed BT15 header sheet may be required in court in the event of suspicion that the herd keeper failed to present all animals kept on the holding as a herd and eligible for testing. Failure to return a BT15 when required is considered a contract breach and may result in the practices contract being terminated.

# Information and Advice to be given to the Herd keeper

5.1.1 On the occasion of the initial visit (Day 1), the AVS or Inspector must advise the herd keeper or his representative that no bovine animal (irrespective of eligibility for testing) may be moved out of the herd, except for emergency or casualty slaughter, for 4 days from the date of commencement of the test without the herd keepergetting the prior permission of a VO/VI in the local DV Office.

5.1.2 Such permission will not normally be granted unless application is made prior to commencement of the test and then, with few exceptions, only for movement direct to slaughter.

5.1.3 When the AVS or Inspector is informed of the intention to move certain animals to slaughter during the test they must record the identity of animals nominated for slaughter on Form BT15, or on the PDA, on Day 1 of the tuberculin test.

5.1.4 Where the first part of the test (Day 1) takes place over several days, no bovine animal may be moved out of the herd without prior permission, as above, except for emergency or casualty slaughter, until the test has been completed on all animals.

##  Eligibility for testing

5.2.1 All Calves under 6 weeks of age are exempt from tuberculin testing They won’t appear on the BT15s for any herd test. If a practice TB tests any animal under 6 weeks without prior permission from their local DVO, DAERA will not pay the practice for testing them.

5.2.2 Details of the animals, including the initial skin-fold measurements, must be entered on Form BT15 (see sections 10 & 16), or on the PDA; the only exception being any animals specifically exempted from testing on the authority of the DV Office. If, for any reason, any eligible animal is not included in the test, the details of such an animal and/or the reason for its omission must be entered on Form BT15, or on the PDA.

##  Grouping information

Before commencing the test the AVS or Inspector should ascertain from the herd keeper whether the herd is maintained in groups. A group of cattle is cattle being kept in one pen, one shed or one field.

If cattle are held in three pens in a shed that is three groups. As a minimum requirement, the tester should record groups as sheds or fields.

The location of each group should be recorded on the header page of the test report Form BT15 or on the PDA, and a grouping code written on Form BT15, or on the PDA, alongside each animal presented that will allow identification of its group if needed. When a herd is grouped on Day 1, the groups must be tested appropriately (preferably in the same order) on Day 4 to ensure that the legally required 72 +/- 4 hours interval is complied with.

##  No medication during the test

5.4.1 Once the tuberculin test commences no animal in the herd should be given any medication, unless urgently required for welfare reasons, without prior consultation with a VO/VI in the local DV Office. Any injectable products should be administered away from test injection sites and preferably not on the same side of the neck. If the AVS or Inspector is aware that any medicine that has been administered, this must be recorded on Form BT15, or on the PDA, giving the name of the medication used, and the date of administration.

5.4.2 Herd treatments (*e.g*. anthelminthic administration, ectoparasite controls, foot trimming, dehorning or castration), which are often carried out when a herd is mustered for tuberculin testing should be delayed until after the test has been completed on the individual animal on Day 4. Animals with non-negative readings should not have routine treatments applied, pending DAERA’s final interpretation of the test readings.

# Supply, Security, Storage and Use of Tuberculins

##  Lelystad (UK) Tuberculin

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Tuberculins are supplied to Approved Veterinary Surgeons upon request to the DV Office. Only Lelystad (UK) tuberculin may be used in Northern Ireland.

## Storage and use

6.2.1 Tuberculins should be stored between 2°C and 8°C to preserve their potency. Tuberculins are not damaged at +2C-+37C during transportation for periods not longer than 14 days but must be protected from freezing. It is recommended to only carry sufficient Tuberculin for the day’s testing.

6.2.2 There is a need to monitor temperatures daily for each fridge containing tuberculin, and a written log of maximum/minimum temperatures must be kept. All records are kept for three years, and the practice must take appropriate action if the fridge cannot maintain the required temperature range. If a refrigeration failure occurs and the temperature of the tuberculin has fallen outside the required range the local DV Office must be notified.

6.2.3 Tuberculin should be transported in a suitably insulated container (*e.g*. polystyrene box, closed with carton sleeve) to protect it from extremes of temperature and direct sunlight.

6.2.4 The expiry date of the tuberculin should be checked before the test to ensure that it is within date at the time of use. Only one batch of bovine and of avian tuberculin should be used throughout a herd test.

6.2.5 New vials should be started for each herd test and partly used vials safely disposed of as pharmaceutical waste by the AVS or Inspector at the end of each day.

6.2.6 Batch numbers of tuberculins used at a test must be entered on the ‘Header’ page of Form BT15. NIFAIS PVP-extranet users will be able to check batch number validity when arranging tests and when checking arranged tests.

6.2.7 Avian and Bovine PPDs in each kit Batch number are matched based on the estimated potency and should not be used with PPDs from a different kit batch number.

6.2.8 Note that the expiry dates of the Avian and Bovine PPD within the kit may be different and both need to be used before the shortest expiry date.

##  Entry into Medicines Record Book

6.3.1 The herd keeper should keep a record of tuberculin administered to their animals in their Animal Medicines Record Book. The AVS or inspector should advise the herd keeper of this requirement.

6.3.2 The following details should be given to the herd keeper: the name, batch number, total quantity and expiry dates of the tuberculin used.  Please note that there is no withdrawal period for tuberculin.

##  Disposal

6.4.1 The expiry date of tuberculins should be regularly checked to ensure that they are within date at the time of use.

6.4.2 Any tuberculin that is unlikely to be used should be returned to the DV Office well before the expiry date.

6.4.3 Because of the potential for misuse, strict security should be maintained in the collection, storage, handling, use and disposal of tuberculins.

6.4.4 Full or partly used vials must not be left on farms and should not be left in unattended, unlocked vehicles. Empty or partly used vials should be safely disposed of as pharmaceutical waste.

# Selection and Maintenance of Tuberculin Testing Equipment

##  McLintock syringes

7.1.1 McLintock type syringes must be used for all tuberculin tests, unless otherwise advised by DAERA.

7.1.2 The needle length must be such that the risk of subcutaneous, rather than intradermal, injection is avoided.

##  Annual servicing

Syringes used for tuberculin testing must be serviced annually by an appropriate servicing agency. Receipts/invoices recording the servicing must be retained by practices approved to carry out tuberculin testing on behalf of the Department. These receipts/invoices must be made available for inspection upon the request of an officer of Department.

##  Maintenance of syringes

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7.3.1 Tuberculin testing syringes must be maintained in satisfactory working order.

7.3.2 Syringes and needles should be carefully examined before and during a test to ensure efficient operation.

7.3.3 Before commencing any herd test the needle and its mounting should be swabbed with surgical or methylated spirit.

7.3.4 Syringes must be emptied of tuberculin at the end of Day 1 to maintain syringe function by avoiding crystallisation of tuberculin in the barrel.

7.3.5 To ensure satisfactory operation, the syringe should be regularly dismantled and cleaned to remove foreign matter from the mechanism.

7.3.6 After cleaning, the plunger should be lubricated with liquid paraffin and thin oil should be applied to the pawl joints and under the pressure lever.

7.3.7 The owner can carry out replacement of a worn pawl but it may be advisable to return the syringe to the supplier for this, or other repairs, to ensure efficient operation.

7.3.8 Maintenance/servicing records must be retained for 3 years.

## Action to take if syringe is filled with wrong tuberculin

7.4.1 Syringes and needles used for tuberculin testing must be reserved solely for this purpose.

7.4.2 Particular care must be taken to ensure that the avian syringe (identified by a red thumb rest) is used only for avian tuberculin and that the bovine syringe (identified by a blue thumb rest) is used only for bovine tuberculin. If, however, a syringe is inadvertently filled with the wrong tuberculin, the following procedure must be carried out: -

(a) discharge the contents;

(b) fill the syringe with sterile water, discharge the contents and repeat this procedure at least 3 times;

(c) fill the syringe with the correct tuberculin and discharge;

(d) again fill with the correct tuberculin and proceed with testing.

7.4.3 It is advisable to keep separate syringes for tuberculins that are licensed separately in ROI and NI. Only tuberculin licensed for use in the UK may be used for tuberculin testing in Northern Ireland.

7.4.4 Syringes that have accidentally been filled with ROI-licensed tuberculin must first be flushed out once with a full charge of UK-licensed tuberculin before being used for testing.

##  Testing equipment required on the farm

The AVS or Inspector should have in his possession at the farm the following items:

* 3 McLintock-type syringes
* 2 pairs of callipers
* 2 pairs of sharp scissors\*
* 2 holsters to hold the McLintock-type syringes and a belt
* spare needles, washers and other spare parts for the syringes
* implements to dismantle and re-assemble the syringes so that replacements or repairs can be made during the test
* surgical or methylated spirit and cotton wool
* a sufficient supply of in-date Lelystad (UK) tuberculin.
* Thermometer
* Stethoscope
* DNA tagger and DNA tags (required on Day 4)

\*If clippers are used to mark the injection sites, at least 1 pair of sharp scissors must also be available on farm.

## Maintenance of equipment other than syringes

7.6.1 **Holsters** should be maintained in a clean condition and swabbed between tests with methylated or surgical spirit. They must be worn in order to provide a safe and clean location for the syringes when not immediately in use at the test. A belt is necessary to support the holsters.

The spirit soaked “plugs” in holsters should be refreshed before each test, and the needle must make contact with the swab or cotton wool between injections. ‘Plugs’ must be kept damp with spirit and replaced when soiled.

7.6.2 **Callipers** used for skin measurement must be maintained in a serviceable condition and capable of accurate measurement. Ball type callipers must not be used.

7.6.3 **Scissors** must be kept sharp and **Clippers** must be maintained in a clean fully functional condition.

7.6.4 **DNA taggers** must be fully functional or replaced

# Identification of Cattle

8.1.1 Before the test commences, the AVS or Inspector must ask the herd keeper if there are any unidentified animals in the herd, and also whether they have new unused authorised tags available for use during the test, if required.

8.1.2 On Day 1, the AVS or Inspector must ensure that the ear tags are read accurately and in full ***i.e*. the letters UK, herd number, individual number and check letter/number (or equivalent for ear tags of imported animals)** and checked against the list of animals recorded on Form BT15, or on the PDA, for the herd.

8.1.3 The AVS must read one of the animals two ear tags completely

8.1.4 On Day 4, the AVS or Inspector must ensure that the individual number and check letter/number is correctly read and checked against Form BT15, or on the PDA

8.1.5 **No identification number may be attributed to any animal unless it is shown on the tag or tags that are actually present in the ear or ears of the animal.**

8.1.6 Whenever individual numbers occur more than once in a herd, the full identification (the letters UK, herd number, individual number and check letter/number) must be read on both Day 1 and Day 4 of the test.

8.1.7 The use of head-counts alone to ensure that all animals are presented on Day 4 is not acceptable since it creates the opportunity for substitutions of non-reactors in place of reactors.

8.1.8 In order to identify groupings of the herd on the days of the test, a coding system should be used (either letters or numbers). These codes can identify animals kept at different locations *e.g*. sheds or fields of a herd keeper’s premises and are of great value for epidemiological purposes. They can be recorded at the right hand side of each animal entry on Form BT15, or on the PDA. The codes should also be summarised on the “header” sheet of the BT15, or on the PDA.

8.1.9 Any irregularities should be treated as described in 8.2-8.4. If the AVS or Inspector has any doubt about the validity of the animal’s identification they should record the number on the field report form and contact the local DVO confidentially by telephone after the test.

If the AVS or Inspector has doubts about the correct action to take he should consult a VO/VI in the local DV Office.

##  Illegible or lost identification.

8.2.1 Before the test commences, the AVS or Inspector must ask the herd keeper if there are any unidentified animals in the herd, and also whether he/she has new unused authorised tags available for use during the test, if required.

8.2.2 If an animal has lost **one** of its ear tags or **one** of the tags has become illegible this must be replaced with a plastic ear tag bearing the **same** number. The animal must not be retagged with a new identification number. If such an animal is presented for testing, the AVS or Inspector must remind the herd keeper of his responsibility to obtain authorisation to replace the lost ear tag with an approved ear tag bearing the same number within 28 days. The AVS or Inspector must carry out a tuberculin test on such an animal.

8.2.3 If an animal has lost **both** of its tags, or where the animal’s identification is illegible, the herd keeper must apply a pair of **new unused** tags to the animals *i.e*. **the animal will be re-identified with a new identity**. It is the responsibility of the herd keeper to inform the Department of lost identification, and to re-tag animals whose identification has been lost within 28 days of noticing the loss. The AVS or Inspector must remind the herd keeper of his responsibility to correctly identify all his cattle.

8.2.4 The AVS or Inspector must include these animals **with new ear tags** in the tuberculin test and record the animal’s description including the entire new ear tag number on Form BT15, or on the PDA.

8.2.5 **No attempt should be made by the AVS or Inspector to correlate identification applied at the test with an earlier identification on the test record**. **The animal details, test readings and results must be written on at the end of the test record.** If such a correlation can be made it is the herd keeper's responsibility to notify this to the Department using Form MC1A.

8.2.6 No Date of Birth should be accorded to such animals but the AVS or Inspector may record an estimate of the animal’s age on Form BT15, or on the PDA *e.g.* small calf, adult female.

##  Insufficient tags held by the herd keeper to tag all unidentified cattle

8.3.1 If there are more than 10 animals without identification in the herd the AVS or Inspector must consult with a VO/VI in the local DV Office, by telephone, to decide if the test should proceed.

8.3.2 If the herd keeper does not have a supply of authorised tags with which to re-identify an untagged animal, the AVS or Inspector must advise the herd keeper to obtain a supply of tags and that an Inspector from the local DV Office may supervise their application. The AVS or Inspector must advise the herd keeper that the herd keeper must notify the DV Office of the description and ear tag numbers allocated to each animal when identified.

8.3.3 In some cases the DVO may agree to supply emergency ear tags for a herd where the AVS or Inspector reports that a large number of animals are unidentified but this is normally done only in the case of restricted herds, at risk herds, or herds under suspicion. The Department will accept this identification for movement control purposes and the herd keeper is required to notify the Department of the animal’s details using form MC1/NIFAIS online in the case of new-born cattle and MC1A in the case of re-identified cattle. The Department may seek remuneration by the herd keeper of the cost of the tags.

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* 1. ***Suspicion of interference with ear tags***

Any suspicion of interference with an ear tag (*e.g*. any sign of cutting, separation or re-closure of plastic tags or empty tag holes in the ear) prior to or during the test should be reported to the DVOconfidentially by telephone. It should not be referred to on Form BT15, or on the PDA.

# BT15s – test report forms & Personal Digital Assistant (PDA)

##  BT15s to be used at the test

* + 1. Form BT15s /PDAs contain the description of animals currently registered in the herd (including the identification numbers) up to the time of printing/upload and must always be used at the test to record measurements, results and swellings and other information.
		2. Animals will be listed on Form BT15/PDA in individual animal number order so that those with the same individual number but different herd numbers will be immediately adjacent and therefore obvious.
		3. In the event of PDA failure, the veterinary surgeon must obtain either a second PDA, to which the herd data has been transferred, or a hard copy pre-populated BT15 before continuing the test.

##  Action to take where an animal shown on the BT15/PDA is not presented for testing

9.2.1 Where any animal listed on the BT15/PDA has not been presented, **its current whereabouts must be ascertained from the herd keeper**. Animals listed on BT15/PDA that have been disposed of, or have not been presented, must be annotated on Form BT15 in the “REM”arks column, or on the PDA, using the following abbreviations: -

* Dead: **DE** (DE4 if applicable only on DAY 4) = died
* Moved Out: **MO** (MO4 if applicable only on DAY 4) = sold to a farm, market or an abattoir or exported. This also applies to “missing” cattle *i.e.* cattle the keeper believes are lost/have strayed away or been stolen. The keeper should be reminded of the requirement to notify these animals to the Department, on an MC2, within 7 days of becoming aware of the fact.
* Not presented for testing: **NP** (NP4 if applicable on DAY 4) = not presented, but animal confirmed as on farm, *i.e*. The AVS or Inspector has seen the animal and read the tag. The reason for non-presentation must be recorded *e.g*. heavily pregnant, too wild or “escaped” following reading of the tag. If the AVS or Inspector does not see the animal and read its tag, it should be recorded as MO

9.2.2 The herd keeper **should** be able to provide this information by consulting the herd register or their copies of the MC2 documents. The serial number of the seller’s copy of the MC2 should be recorded in the “REM”arks column.

9.2.3 If the death of an animal had not been notified to the Department, the herd keeper should be reminded of the requirement to do so within 7days of the death of the animal using Form MC1/NIFAIS online.

9.2.4 If animals presented for testing have not had their birth or movement into the herd notified to the Department, it may not be possible to fully process the test until these notifications have been provided by the herd keeper. Tests should be submitted without the required information about the new animals and tests should then be recalled to insert the required information about the new animals once the herd keeper has provided that information to DAERA;

##  Animals that will not be shown on the BT15 or PDA

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Animals which do not appear on your test sheets or downloaded test data are omitted either because:

9.3.1 Sheets are printed, or test data downloaded too long ago;

TB tests sheets should be downloaded as near to the test date as possible. This will also avoid issues when the risk status of a Test changes (and the test ID also changes). Deleted test IDs are notified to the practice through e-PVP and it is the responsibility of the contractor to ensure information is up to date.

9.3.2 The animal is a calf which the herd keeper has recently registered or is registered under 6 weeks old.

9.3.3 The animal has been moved into the herd very recently.

Where an animal was purchased in the interval between the printing of Form BT15 and the commencement of the TB test, it will not be shown on the BT15 or the PDA.

9.3.4 The animal does not appear on the NIFAIS database and may be illegally moved.

9.3.5 Animals that have not been notified to the Department. The herd keeper is required to enter all details of born or purchased animals in their herd register and to notify DVO of all births and deaths on the farm by completing Form MC1 or using NIFAIS online. If this notification has been made within the time allowed, all eligible animals should appear on Form BT15 or the PDA.

##  Action to take where animals that are presented are not shown on the BT15/PDA:

* + 1. After Day1 of the test and before Day4, The AVS should attempt to input to e PVP the animals not recorded on the downloaded BT15 sheets via the “add animals” function. This will enable the AVS to determine whether any clerical error exists in the record of the animal, or whether there are other issues which can be followed up with the keeper in advance of Day4.
		2. **The test Must NOT be reset or rearranged. Nor should new sheets be printed.**
		3. No ear tags: Cattle bearing no ear tags must be **re-identified** using approved double plastic tags authorised for use in the herd, regardless of the date of birth. If the herd keeper does not have a supply of ear tags the AVS or Inspector must record an accurate description of each unidentified animal, including any identifying detail *e.g*. Management tags/ freeze brands, while retaining the option of scissors clip marks as an additional means of identifying. Any temporary mark used must be unique and visible on Day 4.
		4. When an animal with no ear tags is retagged, **no attempt should be made to correlate identification applied at the test with an earlier identification**. The animal details, test readings and results must be written on at the end of the test. The AVS or Inspector must record the animal’s description, but no Date of Birth should be accorded to such animals although the AVS or Inspector may record an estimate of the animal’s age on Form BT15 or on the PDA e.g. small calf, adult female. The letters “RT” (“Retagged”) should be inserted against the animal in the “REM”arks column.
		5. Herd keeper to inform DAERA. The herd keeper should be advised that the herd keeper must inform DVO of the retagging of the animals using form MC1A. If any correlation can be made it is the herd keeper's responsibility to notify this to the Department using Form MC1A. It is the responsibility of the herd keeper to inform the Department of lost identification, and to re-tag animals whose identification has been lost within 28 days of noticing the loss.

9.4.6 Recent purchase: The animal must be tested, and the test recorded on a blank line of Form BT15 or the PDA giving its identification, colour, breed type, sex and date of birth (if available from the herd keeper). The serial number of the notification document should be recorded in the “REM”arks column of BT15/ on the PDA. Its date of birth should only be recorded if the herd keeper can provide a copy of the Notification of Movement Form (MC2) for the animal.

9.4.7 non-notification of a birth: Where an animal that has been born into the herd is not listed on Form BT15 or the PDA but is eligible for testing, it must be tested. Its full description apart from a date of birth together with the test results must be recorded on Form BT15 or the PDA. The herd keeper should be reminded of his obligation to notify the birth of the animal to the Department. The DoB column of the BT15/ PDA should be annotated “eligible calf”, and the “REM”arks column annotated “MC1 to be submitted”.

9.4.8 Imports: Imported cattle must be tested irrespective of the date of import. Imported cattle must retain their identification if they have been imported from a Member State of the EU. If they have been imported from a third country including Great Britain, Isle of Man or the Channel Islands, they must be identified by means of approved double plastic tags authorised for use by the importer’s herd within 20 days of import unless they are to be slaughtered within 20 days of importation.

If imported cattle are present at the test but not listed on Form BT15 or on the PDA, the AVS or Inspector must record a full description of the animals and the serial number of the import health certificate in the “REM”arks column. If no health certificate is available, this fact must also be recorded in the “REM”arks column.

Where imports are not recorded on the test sheets and the sheets have been downloaded recently, you are required to notify the Department by e-mail and alert them to this import. This will raise the priority of the matter for the DVO to ensure any animals are captured on the database. It will also allow timely reporting of results and quicker payment for the work.

Where notification has been passed to the Department by the keeper, they should be requested to follow the matter up with the DVO to enquire as to the situation or any delay. Where reporting of results is delayed, exemption from sanction will only be considered where there is written evidence received by the Department that timely efforts had been made to resolve matters.

9.4.9 Strayed animals: Animals that have strayed into the herd and therefore mixed with cattle from the herd currently under test should also be tested and their details recorded on the BT15 or on the PDA. These animals will be “C” (“Correctively”) moved into the herd when the test is processed by DAERA. The cattle can then be moved in the usual way on an MC2 out of the herd back to the herd they came from, assuming no herd or individual animal disease restrictions are in place.

## Retention of Field Copies of Test Report Forms

Field copies of all Form BT15s must be retained for at least 3 years and must be submitted to the DV Office on request. Field copies of Form BT15 must be available for auditing by DAERA staff upon request. Copies of the tests conducted using PDAs are saved onto the user’s PC and these must be retained for 3 years. Both paper and electronic records must be readily available for authorised officers to inspect and must be capable of being printed. Advance warning of DAERA auditing visits will be given, although no information will be provided on the herds/tests selected for auditing.

#  Technique of the Tuberculin Test

10.1.1 The Single Intradermal Comparative Cervical Tuberculin Test involves the intradermal injection of 0.1 ml of avian and 0.1 ml of bovine tuberculin (Lelystad UK PPD) into the skin of the neck on the first day of the test (Day 1) with skin-fold measurements at the injection sites being recorded, on one of the copies of the BT15 sheets provided or on a PDA, immediately before and again 72+/– 4 hours after injection (Day 4). The result of the test depends upon a comparison of the responses elicited by the avian and bovine tuberculins.

10.1.2 The testing process must be completed on an individual animal before moving on to the next animal, unless in exceptional circumstances *e.g*. the animal escapes from the crush.

10.1.3 AVSs and Inspectors should record their start and finish time on farm on both Day 1 and Day 4 on the BT15/PDA.

## Siting of injections

10.2.1 Careful siting of the injections is important because of the variation in skin sensitivity at different parts of the neck. Sites low on the neck and near the head are more sensitive than those close to the crest and nearer the shoulder. To ensure a reliable interpretation of the comparative test, sites of similar sensitivity must be used consistently.

10.2.2 Both sites should be in the middle third of the neck. The upper site must be used for avian tuberculin and should be at least 4 inches (10 cm) below the crest. The lower site must be used for bovine tuberculin and should be about 5 inches (12.5 cm) below the avian site on a line roughly parallel with the slope of the shoulder (see Diagram 1).

In young calves where there is insufficient space for such siting, sites must be selected on opposite sides of the neck.

**Diagram 1**: Selection of sites for the Comparative Intradermal tuberculin test.

##

## Examination for swellings

A careful examination must be made on Day 1 for pre-existing swellings on the neck that could be confused with a reaction to either tuberculin when reading the test. This examination should also include palpation of the site. Where such swellings are present, their location should be noted on the Form BT15 or on the PDA and the injection sites located well away from them or on the other side of the neck. Any pre-existing swellings should be pointed out to the herd keeper.

## Recording which side of the neck has been injected

A record must be kept of which side of the animal’s neck has been used for the tuberculin test. This record should be kept on Form BT15 or on the PDA. The side of the neck may change between animals, and it is a simple mistake to present the opposite side of the neck from that injected for reading of the test. In some of these instances however, confusing areas of hair removal have also appeared on the “wrong” side. Confusion may only be precluded by making a record on the BT15 or on the PDA on Day 1 of the test as outlined above. When opposite sides of the neck are used in small animals, a record must be kept of the side used for avian tuberculin injection and the side used for the bovine tuberculin injection.

## Clipping

10.5.1 Before measurement of skin-folds, the hair over each site must be clipped or otherwise removed, sufficiently for accurate measurement to be made and in order that the injection site can be readily identified at the test read off visit (Day 4). It is also important that the nature of any reaction (*e.g*. the presence of oedema) can be easily palpated and seen. The injection site must be so marked even where the hair is very fine or sparse.

* + 1. Two distinct sites must be clipped *i.e.* it is not acceptable to use clippers to remove hair over a single large area, and to inject both tuberculins within that single clipped area. Clip marks should be clearly visible, at least 2.5 cm in length and achieve sufficient removal of hair and debris to cleanse the site.

## Skin measurement

Before injecting tuberculin, the thickness of the skin-fold at the site of each injection must be accurately measured using callipers and the measurement recorded on the Form BT15 or on the PDA. The measurement should be carried out by lifting the skin-fold between the fingers and thumb of one hand and applying the callipers with the other hand. It is important that the measurements recorded should be those at which the callipers make a sliding fit over the skin-fold at the injection site both before and 72 +/- 4 hours after injection and that no pressure is applied to the skin-fold. The measurement must not be carried out using one hand only. Ball type callipers must not be used. All measurements must be rounded up to the nearest whole millimetre.

## Filling the tuberculin syringe

After filling the syringe with the appropriate tuberculin, care must be taken to ensure that any air taken in with the tuberculin is removed by ejecting tuberculin vertically upwards until the resistance to the plunger and the appearance of tuberculin indicate that all air has been cleared.

***10.8 Siting of injections***

Ensure that injections are made in the sites which have been clipped.

***10.9 Injection technique***

10.9.1 The simultaneous injection of avian and bovine tuberculin*, e.g*. by a double‑handed technique, is not acceptable.

10.9.2 Holsters must be worn and used so that each of the injections of tuberculin can be properly administered, having one hand free to steady the site, if necessary, and the other hand to operate the syringe.

10.9.3 The syringe needle, bevel edge outwards, must be inserted obliquely into the substance of the skin in the appropriate clipped area. This action should be controlled.

10.9.4 Stabbing action should be avoided as this usually involves the animal being startled and moving suddenly. If this control is not established, the accuracy of the injection may well be reduced, the tuberculin may not be injected into skin at all or it may be injected subcutaneously or a reduced dose may be administered.

## 10.10 Palpation of the site after injection

10.10.1 Immediately after injection the site must be palpated to confirm the presence of a small nodule in the skin.

10.10.2 Where doubt exists as to the effectiveness of any injection, a further dose of the tuberculin should be injected at a new site prepared 2-3 inches (5-8 cm) anterior or posterior to the first site or on the other side of the neck. A note of this action (indicating which is the correct site of tuberculin administration) and a record of the measurements of the new site must be made on the Form BT15 or on the PDA. Up to 3 attempts on either side of neck can be made until the animal was satisfactorily tested. All sites used for repeat intradermal injection must be located within the middle third of the neck.

***10.11 Recording gross changes on day 4***

10.11.1 When reading the test, the bovine and avian injection sites must first be examined and palpated for evidence of any gross changes. All changes must be recorded in the column provided on Form BT15 headed “Swl” (“Swelling”) or on the PDA. The following abbreviations should be used where appropriate: -

|  |  |
| --- | --- |
| C = circumscribed swelling | S = slight oedema |
| H = heat | D = diffuse oedema |
| P = pain | E = extensive oedema (O on PDA) |

These abbreviations may be used singly or in combination.

10.11.2 These abbreviations have been changed slightly to facilitate recording on the NIFAIS PVP-extranet. The new abbreviations are a simplification and should also be used by non-participating practices.

10.11.3 Any other observations about the reactions found may be made in the “REM”arks column of Form BT15 or on the PDA. Exudation or necrosis at the bovine site and swelling of the related prescapular lymph node are all clinical signs which must be recorded.

## 10.12 Measurement on day 4

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10,12,1 The skin-fold thickness at each site must be measured using callipers 72 hours after the time of injection.

10.12.2 The time of re-measuring on Day 4 must not differ from the time of injection on Day 1 by more than 4 hours. If this time limit is exceeded due to unavoidable circumstances, a VO/VI in the local DV Office must be informed.

10.12.3 If different times are arranged for Day 4, Approved Veterinary Surgeons or Inspectors will be responsible for ensuring that the DV Office is aware of the altered time by using the Day4TBTesttimes@daera-ni.gov.uk or the telephony service **0300 200 7853** . On the NIFAIS PVP Extranet, there is an ‘email DVO’ tab which can be used to notify the Department of a change of start time. This allows the user to select whatever DV Office the herd is in, and this email goes to the DVO post. This is especially important where synchronisation of DAERA staff visits is necessary.

10.12.4 The same practitioner must conduct all parts of a test on an individual animal basis, except in exceptional circumstances and only if there is prior permission from DAERA. See 15.3.10 also.

10.12.5 Any reaction on Day 4 should be measured across the widest part of the swelling, without applying undue pressure. If any swelling is present within the site on Day 4, then that swelling should be measured rather than just measuring the site. All measurements must be rounded up to the nearest whole millimetre.

## 10.13 Recording of results

10. 13.1 The reaction at either the bovine or avian site is regarded as a positive reaction at that site if the increase in skin-fold thickness is greater than 2 mm. A reaction that shows oedema, heat or pain may also be regarded as positive even if the increase in skin-fold thickness is not greater than 2 mm. Interpretation of results is covered in section 13.

10.13.2 The result of the test in respect of each individual animal must be entered in the “RES”ults column and for this purpose the following abbreviations should be used: -

* N = Negative
* P = Positive
* I = Inconclusive

***10.14 DNA tagging of Positive Reactors***

10.14.1 When the AVS has identified a Positive Reactor (or an animal which they deterimine is a reactor animal based on the animal having clinical signs of bovine TB) a DNA tag must be applied to the animal. The DNA tag number must be recorded against the animal in the Remarks column of the BT15 or by selecting ‘DNA ID tag’ from the menu on the PDA. In the case of BT15’s, the practice staff must enter the DNA tag number using the pop-up on ePVP.

10.14.2 If the interpretation level for the test has been changed from Standard to Severe during the test and an animal which was an Inconclusive Reactor then becomes a Positive Reactor it does not need to be DNA tagged.

10.14.3 The vial containing the tissue sample from each reactor must be properly packaged and the package must either be posted (or by any other method delivered) to the

DAERA Central Enforcement Office,

Loughry College,

Dungannon Road,

Cookstown

BT80 9AA

or can be delivered to the local Divisional Veterinary Office.

The package must reach the Central Enforcement Office or the local Divisional Veterinary Office within 10 working days of the day of sampling.

However, if the package arrives at the Central Enforcement Office after 10 working days there will be no fee deduction due to late delivery if the practice has a contemporanseous record of postage/delivery to the DVO office.

# Clinical Inspection and Examination

* 1. **All cattle*:***
		1. A visual clinical inspection of all cattle tested must be carried out at every tuberculin test.Throughout the conduct of the test, the AVS or Inspector must constantly visually inspect the cattle for signs of clinical bovine tuberculosis.
		2. Where any animal shows signs of emaciation, cough or nasal discharge, the AVS or Inspector must carry out a clinical examination of the animal, palpating the superficial lymph node sites and the udder of female cattle.
		3. Any animal suspected of being a clinical case of TB (regardless of the intradermal test result) should be declared a reactor and its clinical signs must be carefully recorded on Form BT15 in the “REM”arks column, or on an additional page if necessary, or on the PDA. The remarks recorded must include “Suspect clinical TB”.
		4. NIFAIS PVP-extranet users will be able to enter up to 50 characters in the “Remarks” column. Please note this is less than the number of characters available on certain PDA models so entire comments may not be transferrable to NIFAIS.
		5. Signs of “Skin Tuberculosis” (STB) must also be looked for and recorded, if present.

## Animals with inconclusive or positive readings.

.**11.2.1** Examination:

Where animals with inconclusive or positive readings are found at a test, a careful physical examination must be carried out on these animals. The presence or absence of any of the signs of TB infection must be recorded on Form BT15, on the PDA, or extended onto an additional report by the AVS or Inspector if he/she considers it to be necessary. The AVS or Inspector must verbally notify the herd keeper or their agent of the identification of any reactor or inconclusive reactor at the time of identifying any animal with non-negative readings.

11.2.2 Pregnancy status and medication

The pregnancy status of animals with inconclusive readings, and any medication which they have received within 2 weeks of the test, must also be recorded on Form BT15 or on the PDA (immunosuppression may occur for a short period before and after parturition; certain drugs can cause immunosuppression or immunostimulation).

# Interference with the test

12.1 Report suspicion: Suspicion of interference with the test (*e.g*. administration of corticosteroids, injection of irritants into either site, unusual nature of swellings) should be reported confidentially to the DVO by telephone. It should not be referred to on the Form BT15, or on the PDA.

12.2 Genuine treatments which may have interfered with the test should be recorded on the Form BT15 or on the PDA (*e.g*. anti-inflammatory treatment, anthelmintic or vaccine injections into the neck*, etc* - please refer to section 5.4).

# Interpretation of the test in the field

## Interpretation level

13.1.1 The test result will depend on whether the ‘Standard’ or ‘Severe’ level of interpretation is applied and precise interpretation instructions are set out in a table in section17. The guide to interpretation is also presented in graphical form in section 18. Severe interpretation must be used on farm at a) all tests during an OTW TB breakdown, b) any test specified for severe interpretation and c) any other test with 2 or more skin reactors.

13.1.2 In tests carried out under severe interpretation, the result assigned on farm to each individual animal must be either ‘P’ or ‘N’. All animals with severe IC readings should be assigned an ‘N’ result, unless, on the basis of clinical observations made on farm, there is a reason to assign a ‘P’ result *i.e*. suspected clinical case, or where the bovine site demonstrates diffuse or extensive oedema, exudation, necrosis or pain; or where there is inflammation of lymphatic ducts or lymph nodes locally.

* 1. ***DVO discretion***

Upon the basis of additional information available at the DV Office, the DVO retains the discretion to review the interpretation after completion of a test by any AVS.

## Recommending a different level of interpretation

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If the AVS or Inspector has reason to believe that a different level of interpretation should be applied in respect of a particular animal/group, they should speak to a VO/VI in the local DV Office for their consideration.

## Issuing Information to Herd keepers BT23 form

Where animals with positive or inconclusive readings are identified at a test, Form BT23 should be completed and provided to the herd keeper by the AVS or Inspector. Serving of the BT23 must be recorded on the electronic BT15 header sheet and a copy returned to the DV Office.

# Advice to herd keepers

##  Advising herd keeper of possibility of re-interpretation

On completion of a test, the AVS or Inspector should advise the herd keeper of the findings. It is most important, however, that whatever the result of the test, the herd keeper should be told clearly by the AVS or Inspector that the result given to him/her is without prejudice to any variation in interpretation which the DV Office might for any reason deem necessary. In particular, the AVS or Inspector should advise the herd keeper that where animals with positive readings are revealed, a stricter assessment of the herd test may be made by the DV Office. (See section 13.2).

## Advising herd keeper of public health risks

Where animals with positive or inconclusive readings are identified by the AVS or Inspector at a test they must, pending official notification by the Department, advise the herd keeper of the public health risks associated with bovine tuberculosis and discuss appropriate measures to overcome these. Advice is provided on the BT23 form.

## Advising herd keeper of isolation requirements

On conclusion of the test, the AVS or Inspector must give the herd keeper advice as to the appropriate isolation of animals with inconclusive or positive readings revealed at the test and must also discuss arrangements for the isolation of these animals. Guidance on suitable isolation is given on the BT23 form.

# Completion of Test Reports

## Submission of results

Throughout this section, references are made to the “REM”arks column of the BT15: on paper copies of the BT15 this column is headed “REM”; on the electronic copy it is headed “Remarks”.

15.1.1 Form BT15 or a PDA must be routinely used at tuberculin tests for recording and the making of comments in relation to the test being carried out. Paper other than BT15s, including field notebooks, should only be used in exceptional circumstances such as bad weather conditions.

Form BT15 is available in paper copy from local DV Office, or alternatively can be accessed in electronic format by practices that are participating in the NIFAIS PVP-extranet.

The record of each tuberculin test completed must be made on Form BT15 or on the PDA . It should be noted that this is a professional certificate.

15.1.2 The field copies of Form BT15 must be retained for at least 3 years. Field copies of Form BT15 must be available for auditing by the Department on request.

Copies of the tests conducted using PDAs are saved onto the user’s PC and these must be retained for 3 years.

15.1.3 Failure to complete Form BT15s in accordance with the following paragraphs may result in delay in processing of the test.

## Making amendments to Form BT15

15.2.1 Approved Veterinary Surgeons or Inspectors must ensure that the animal results are recorded against the correct animal. Animal details (breed type, colour, and sex) should be checked at the time of testing.

15.2.2 If there is any doubt about the identity of the animal, or if the animal is not printed onto Form BT15 or on the PDA, it should be added onto the end of the form as described in sections 9.3 and 9.4, using the breed and colour codes set out in section 19.

15.2.3 Where amendments are to be made to field copies of Form BT15, this should be done by scoring a single line through the incorrect data and writing the correction immediately above it on the printed BT15 used at the test.

15.2.4 **Printed ear tag numbers should not be amended.** Animals whose identification number varies by even 1 digit or letter from the numbers on the printed list must be **added on at the end** of the test report with colour, breed, sex and description (*e.g*. calf, bulling heifer, adult cow) but no DOB accorded.

15.2.5 All changes and remarks should be transferred onto the electronic Form BT15 submitted to the Department. Discrepancies that arise must be recorded on the “Change animal” page. Additional animals must be added to the electronic BT15 using the “Add an animal” function. Comments may be included in the “Remarks” column of the electronic BT15. A full description of dealing with the interface is given in the NIFAIS PVP-extranet Guidelines to Practitioners.

15.2.6 If using a PDA on farm, an animal’s colour, breed or sex can be edited. However, if results are uploaded electronically from a PDA to e-PVP, changes to colour, breed and sex of an animal are currently not uploaded.  These changes need to be made to the data manually when uploading test results.

## Other information to be provided

15.3.1 Veterinary opinion: If an AVS carrying out a test is of the opinion that the test result in respect of any animal warrants interpretation other than in accordance with the general instruction, they should phone a VO/VI in the local DV Office for consideration (see section 13.3).

15.3.2 Any other comments regarding the reactions and result in respect of any animal should also be entered in the “REM”arks column, on the PDA or on Form BT15 header page. However, where the AVS or Inspector is suspicious of any aspect of the test, their concerns should be discussed directly with the DVO.

15.3.3 Clinical findings: Clinical findings, suggestive of tuberculosis, must be entered in the “REM”arks column against the animal concerned. Any animal suspected of being a clinical case of TB (regardless of the intradermal test result) should be declared a reactor and the remarks recorded must include “Suspect clinical TB”.

15.3.4 It is also important that any evidence of Skin TB, particularly in animals classified as having inconclusive or positive readings, is recorded using the code “STB”

15.3.5 The pregnancy status of animals with inconclusive readings must be recorded using the codes shown in section 19 as well as any drugs or medication that they have received within 2 weeks of the test.

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15.3.6 The number of the DNA tag of any reactors to which DNA tags have been applied must be recorded against the reactor in the Remarks column of the BT15 or on the PDA by selecting ‘DNA ID tag’ from the menu on the PDA In the case of BT15s, practice office staff must enter the DNA tag number using the pop-up on ePVP.

15.3.7 Animals in contact with reactors

The letters “CON” (“Contact”) must be entered in the “REM”arks column against animals in close contact (in the same group) with any animals with positive readings identified at the test (*e.g.* part of the same group).

15.3.8 Other susceptible species

Where other susceptible species (*e.g*. goats) are kept in circumstances that might allow transmission of disease from cattle, this should be discussed with a VO/VI in the local DV Office . The DV Office will use this information to make a decision as to whether testing is required on these animals.

15.3.9 **Part tests**

It is not permitted to carry out several part tests to make up a whole herd test over a period of time.

Part tests are only allowed where there is no second part, as specified for certain test reasons following risk assessment by the local DV Office. Currently only part-LCTs, part ICTs or part-RHTs are allowed.

It must be clearly stated on Form BT15 header page if the report refers to a test of part of the herd rather than the whole herd (*i.e*. Part = a part test as approved by a VO/VI in the local DV Office).

15.3.10 **Sectional tests**

Where a herd is too big to complete on the one arranged day, the test may be extended to the subsequent consecutive day(s) with the permission of a VO/VI in the local DV Office.

In this case the test is not viewed as several part tests but as one whole herd test done over more than one day.

It is expected that all herd tests would be completed within an absolute maximum of 2 weeks.

The completion date of the sectional test is the day of reading of the animals which were tested last.

15.3.11 Where an individual animal test (*e.g*. RI = retest of inconclusive; CTT = Check Test Trace; CTI = Check Test Import; CTS = Check Test Status; CTQ=Check Test Query; PNA = Private Test, Move Not Allowed; PNT = Private Test, Not Tested for 15mths) is to be carried out as part of the herd test, the animal will be clearly identified on Form BT15 or PDA by the letter codes given above in the last 3 character positions of the “REM”arks column. Except in the case of PNTs, an indication as to whether the animal was properly isolated at the time of the test must be made in the “REM”arks column.

15.3.12 Non-presentation on day 4.

Where animals which were injected on Day 1 are not presented on Day 4, details of where these animals were disposed of must be given in the “REM”arks” column. The serial number of the MC2 should be recorded. It must also be indicated whether these animals were nominated on first day for slaughter (see section 5).

15.3.13 Submission of test summary details

Details of the

* date of completion of the test
* total number of cattle tested
* batch numbers of the avian and bovine tuberculins
* AVS signature
* AVS computer code
* date of signature

must be entered on the header page of Form BT15.

Details of the advice given to the herd keeper, or their agent, regarding the results of the test, the grouping of animals in the herd and the presence of animals from other herds on the premises must also be entered on the BT15 header page.

The electronic header sheet completed through the extranet ePVP must also record the provision of BT23, confirm that the herd keeper or their agent has signed the paper BT15 header and carry the practice Principal / Partner / Director/ Veterinary Manager’s countersignature. The test summary must be submitted on NIFAIS in accordance with the time limits laid out below.

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15.3.14 Notification periods

Notify the DV Office *via* the NIFAIS PVP-extranet of the test results:-

(i) within 5 working days of day 4 if it is a clear test;

(ii) within 2 working days of day 4 if there are animals with inconclusive readings;

(iii) within one working day of Day 4 if there are animals with positive readings.

15.3.15 Signature of AVS

AVSs or Inspectors must sign each field copy sheet, or alternatively may fan out field copies of Form BT15 and sign and date across the back of these support documents which are to be retained for 3 years.

Copies of the tests conducted using PDAs are saved onto the user’s PC and these must be retained for 3 years.

15.3.16 More than one AVS

In exceptional circumstances where more than one AVS has to be involved in conducting the test on day 1 or day 4 or both, prior permission must be obtained from a VO/VI in the local DV Office.

15.3.17 Requests for amendment of submitted test results.

After sign-off and submission of a test’s details onto NIFAIS, ~~if~~ the AVS may request any amendments *via* NIFAIS PVP- extranet .AVSs are limited to entering 250 characters on NIFAIS when requesting a test to be recalled. Additionally, when recalling a test, the AVS should email the relevant DV Office to notify them that they have recalled the test. As this is a request for a change to veterinary certification, the following information will be required.

* Full name of the AVS who carried out the test.
* NIFAIS Testing Officer Code of same
* NIFAIS Enterprise Code of the Practice
* Herd keeper name
* Herd Keeper address
* Herd number
* Test ID
* Type of test
* Date of test
* Full details of the incorrect data submitted previously.
* Full details of the correct data, to replace the incorrect data.
* A detailed explanation of the reason why the incorrect data was submitted.
* Supporting documentation, *e.g*. original test sheets, to be submitted by email attachment / in person / by post, where relevant.

The Patch VO/VI may request further supporting information and will decide whether or not the test results can be amended. If the VO/VI for the herd is content, the test will be reopened allowing the AVS or Inspector to make the changes prior to repeat sign-off and resubmission.

email addresses for DV Offices are:

Post.Armagh-DVO@daera-ni.gov.uk

Post.Ballymena-DVO@daera-ni.gov.uk

Post.Coleraine-DVO@daera-ni.gov.uk

Post.Dungannon-DVO@daera-ni.gov.uk

Post.Enniskillen-DVO@daera-ni.gov.uk

Post.Strabane-DVO@daera-ni.gov.uk

Post.Mallusk-DVO@daera-ni.gov.uk

Post.Newry-DVO@daera-ni.gov.uk

Post.Newtownards-DVO@daera-ni.gov.uk

Post.Omagh-DVO@daera-ni.gov.uk

# Private Tests.

***16.1 Obtaining permission.***

Where private tuberculin tests are to be carried out by an AVS for reasons such as export, entry into AI Centres or as a post-movement check, prior approval must be sought from the DV Office in whose area the animals are located. Approval will be given provided that the animals are eligible for the movement intended and subject to the following conditions: -

* The AVS must have been officially approved to carry out tuberculin tests.
* Animals which have been tuberculin tested within the previous 42 days must not be included in the test.

A list of ear tag numbers of the animals to be tested should be submitted to the DV Office before the test commences. The list may be verbal or in writing.

## 16.2 Conditions

* Animals that have been tuberculin tested within the previous 42 days may not be tested.
* All animals on which the test is commenced must be presented, and their skin measurements recorded, on Day 4.
* The Single Intradermal Comparative Cervical Tuberculin Test must be used unless the DVO has authorised the use of a different test.
* Any animals with positive or inconclusive readings revealed at the test must be dealt with by the AVS as if they had been disclosed at an official test. The herd keeper must be informed of the result of the test and Form BT23 must be provided as appropriate.
* Reactor animals must be DNA tagged.
* The completed BT23, if appropriate, must be sent to the DV Office, or the results must be uploaded without delay whether or not any proposed movement takes place.
* The Department will not be responsible for any fees connected with private tests.

# 17 Appendix 1 – Textual description of interpretation

**SINGLE INTRADERMAL COMPARATIVE CERVICALTUBERCULIN TEST**

|  |  |  |  |
| --- | --- | --- | --- |
| **RANGE OF INCREASE IN SKIN FOLD THICKNESS** | **REACTION AT SITE** | **STANDARD INTERPRETATION** | **SEVERE INTERPRETATION** |
| Avian increase 0-2mmBovine increase 0-2mm and no clinical signs\* | A -B - | NEGATIVE | NEGATIVE |
| Avian increase – No LimitBovine increase – 0-2mm and no clinical signs\* | A +B - | NEGATIVE | NEGATIVE |
| Avian increase 1-2mm greater than a bovine increase of more than 2mm and no clinical signs\* | A +B + | NEGATIVE |  INCONCLUSIVE(To be interpreted as NEGATIVE on farm) |
| Avian increase of more than 2mm which is equal to Bovine increase of more than 2mm and no clinical signs\* | A +B + | NEGATIVE | INCONCLUSIVE(To be interpreted as NEGATIVE on farm) |
| Avian increase of more than 2mmBovine increase 1-2mmgreater than the avian increase and no clinical signs\* | A +B + | INCONCLUSIVE | POSITIVE |
| Avian increase 0-2mmBovine increase of 3-4mm and no clinical signs\* | A -B + | INCONCLUSIVE | POSITIVE |

|  |  |  |  |
| --- | --- | --- | --- |
| **RANGE OF INCREASE IN SKIN FOLD THICKNESS** | **REACTION AT SITE** | **STANDARD INTERPRETATION** | **SEVERE INTERPRETATION** |
| Avian increase of 1-2mmBovine increase of 5mm and no clinical signs\* | A -B + | INCONCLUSIVE | POSITIVE |
| Avian increase of more than 2mmBovine increase 3-4mm greater than avian increase and no clinical signs\*  | A +B + | INCONCLUSIVE | POSITIVE |
| Avian increase 0-2mmBovine increase 5mm greater than Avian increase or with clinical signs\* | A -B + | POSITIVE | POSITIVE |
| Avian increase of more than 2mmBovine increase 5mm greater than Avian increase or with clinical signs\* | A +B + | POSITIVE | POSITIVE |

\*Any animal where the Bovine site demonstrates clinical signs such as diffuse or extensive oedema, exudation, necrosis, pain or where there is inflammation of the lymphatic ducts in that region or of the lymph nodes must be interpreted as having positive readings.

# 18 Appendix 2 – Graphical interpretation charts

Figure 1: Standard interpretation

Figure 2: Severe interpretation


# 19 Appendix 3 – Abbreviations (breed, colour, sex)

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| **BREEDS** |
| Aberdeen Angus | AA | Longhorn | LH |
| Angler Rotvieh | AR | Limousin | LIM |
| Aubrac | AU | Lincoln Red | LNR |
| Australian Low Line | ALL | Luing | LUI |
| Ayrshire | AYR | Maine Anjou | MAJ |
| Baltata | BAR | Marchigiana | MAR |
| Baltata Bruna | BBR | Meuse Rhine Yssel | MRI |
| Baltata Negra | BAN | Montbeliarde | MB |
| Baltata Romanesca | BAR | Murray Grey | MG |
| Bazadais | BAZ | Normande | NOR |
| Belgian Blue | BB | Norwegian Red | NR |
| Bison | BI | Parthenaise | PAR |
| Belted Galloway | BGA | Piedmontese | PIE |
| Blonde D’Aquitane | DAQ | Pinzgauer | PIN |
| Blue Albion | BAL | Red Pole | RPL |
| Braunbieh | BRA | Romagnola | ROM |
| British White | BW | Rotbunt | ROT |
| Canadian Black | CAN | Salers | SAL |
| Charolais | CH | Shetland | STL |
| Chianina | CHI | Shorthorn | SH |
| Chillingham | CHL | Shorthorn Beef | SHB |
| Danish Red | DR | Shorthorn Dairy | SHD |
| Devon | DEV | Simmental | SIM |
| Dexter | DEX | South Devon | SD |
| European Angus | EA | Speckle Park | SPK |
| Fleckvieh | FKV | Stabiliser | ST |
| Friesian | FR | Sussex | SU |
| Galloway | GAL | Swedish Red | SWR |
| Gasconne | GAS | Swiss Brown | SBR |
| Gelbvieh | GE | Tyrone Black | TYB |
| Gloucester | GLO | Unknown | UNK |
| Guernsey | GU | Vaynol | VA |
| Hereford | HER | Vosgienne-Vosges | VOS |
| Highland | HI | Wagyu | WAG |
| Holstein | HOL | Water Buffalo | BU |
| Irish Moiled | IM | Welsh Black | WB |
| Jersey | JER | White Galloway | WG |
| Kerry | KE | White Park | WP |
| This list is complete for Northern Ireland at present and will be revised by DAERA as necessary. However, if you do wish to record a breed not on the list, enter in full for the attention of the DVO. In the case of cross breeds, record only the dominant breed.The most up-to-date list of cattle breeds is on the internet at<https://www.daera-ni.gov.uk/articles/codes-use-herd-register> |

|  |
| --- |
| **COLOURS** |
| Black |  B | Black & White |  BW |
| Blue  |  BL | Blue & White  |  BLW |
| Brindle  |  BR | Brindle & White |  BRW |
| Dun |  D (includes Yellow, Fawn, Light Brown, etc.) |
| Red  |  R | Red & White  |  RW |
| Roan |  RN | Roan & White |  RNW |
| White  |  W | Dun & White  |  DW |
| All colour types are covered, do not use any variation. Colour dominance is not important e.g. white & black = BWPlease note BROWN must not be used. The colour recorded depends on the intensity of the colour - Red (R) or Dun (D) should be used.  |
| **CLASS /SEX** |
| Female |  F | All bulls over 6mths of age should be recorded as B. All other males (steers & bull calves) should be recorded as M unless a bull calf is intended for breeding purposes in which case B should be used. |
| Bull  |  B |
| Male |  M |
| **PREGNANCY STATUS** |
| Served 1 month |  SIM | At note |  AN |
| Served 2 months |  S2M | Fresh calved  |  FC |
| Served 3 months |  S3M | Calved 1 week  |  C1W |
| Served 4 months |  S4M | Calved 2 weeks |  C2W |
| Served 5 months |  S5M | Calved 1 month |  C1M |
| Due 3 months  |  D3M+ | Calved 2 months |  C2M |
| Due 2 months  |  D2M | Calved 3 months + |  C3M+ |
| Due 1 month  |  D1M |  |   |
| Maiden heifer  |  MH | Bull  |  B |
|  |   |  |   |
| Aborted (1 to 14 days) |  A1 to A14 | Retained placenta  |  RP |