Department for Environment, Food and Rural Affairs
Scottish Government
Welsh Government

Animal & Plant Health Agency

Tuberculin Skin Test Audit - Minimum Requirements

The following audit checklist represents the minimum standard of audit that must be delivered for all TB testers carrying out the Tuberculin skin test, regardless of who is delivering the audit.

This minimum standard may be enhanced by audit providers to satisfy their own audit requirements.

The nature of the non-compliances that may be encountered are indicated and rated according to severity. The categories are based on the **potential** impact the non-compliance could have, not on the **actual** impact on the test being carried out. Any non-compliance that falls into the 'critical' category could potentially affect the validity of the test. The category of non-compliance will inform the decision regarding the nature and severity of the sanctions to be applied (see Part 2 below).

Auditors must also refer to the TB Auditing Standard Operating Procedure Document (TR315) - the areas to be covered during the auditing process.

Prior to conducting an audit the auditor must confirm that the person to be audited holds the correct authorisation to test - either under the:

- Official Controls Qualification (Veterinary) - Tuberculin Testing (OCQ(V) - TT) for veterinary surgeons or
- OCQ(Animal Health Paraprofessional) - Approved Tuberculin Tester (OCQ(AHP) - ATT) for paraprofessionals.

Part 1

ASSESSMENT AREA	Category of Non-compliance				
	SATISFACTORY	NOT SATISFACTORY →			UNACCEPTABLE
		Minor	Intermediate	Major	Critical
Time of reading of test	Test completed within 72 +/- 4 hours of TT1.				**Failure to turn up at TT2.** **Test not started or completed within 72 +/- 4 hours.** (Escalate to APHA for advice)
Official Veterinarian (OV)	Same OV testing on TT1 is reading on TT2 unless APHA authorises otherwise.			A different OV reads on Day 2 without APHA authorisation. (Escalate to APHA)	

Hygiene					
Protective clothing	All protective clothing must cover any normal clothing completely, be clean on arrival, suitable for cleansing and disinfection (C&D), or can be removed and sealed in a bag prior to leaving the premises e.g. Wellington boots plus protective layer which is removed before leaving the farm. Brown coats/paper overalls which are removed and bagged before leaving the farm.	Clean but incomplete protective outer layer and no spares available. Waterproof Personal Protective Equipment (PPE) items significantly perished or damaged so that clothing underneath is exposed.		Soiled or no protective clothing prior to start of testing. Failure to agree to C&D or about to start test without having completed C&D.	
PPE Cleansing and Disinfection (C&D)	OV spotless. C&D completed before and after testing. Use of an approved disinfectant at correct dilution.	Disinfectant dilution is not accurately measured. A part of the C&D, equipment is missing but procedure still carried out effectively.	Poor C&D technique. C&D not completed before testing (unless clean/new kit then reduce to minor). Significantly incomplete C&D equipment.	No C&D of PPE after testing or both before and after testing. No disinfectant or use of a non-approved disinfectant.	
Equipment Cleansing and Disinfection (C&D)	Test equipment visibly clean.		Test equipment not cleaned/disinfected after testing.	Dirty testing equipment. No C&D equipment for cleaning test equipment (N/A if going back to practice to clean and all kit properly bagged to prevent contamination).	
Vehicle Cleanliness	Vehicle clean on arrival other than any dirt that would reasonably be expected to be caused by the journey to the farm.		Vehicle dirty on the outside and visibly contaminated with manure/slurry but vehicle not taken into animal area.	Vehicle dirty on the outside and visibly contaminated with manure/slurry and	

				vehicle taken into animal area. Vehicle contaminated with faeces inside and out - irrespective of where parked on the premises.	
Tuberculin					
Tuberculin storage	Vials protected from light, adverse temperature and dirt. Stored according to data sheet	Poor stock control - unnecessarily high amount of vials unrefrigerated in vehicle.	Not stored according to data sheet. Dirty vials.		**Not stored according to data sheet and likely to affect efficacy of the test - frozen/overheated.**
Tuberculin use	New un-broached vials. Use of corresponding Avian and Bovine batch numbers. Only one set of corresponding batches used for test. In date. Adequate number of vials.	Avian and Bovine tuberculin batch numbers correspond, but more than one set of corresponding batches used. Poor stock control or high wastage of tuberculin.	Tuberculin batch numbers recorded incorrectly for test report.	Use of broached vials.	**Use of out of date tuberculin.** **Use of vials which have visibly contaminated contents.** **Non corresponding Avian and bovine batch numbers used.**
Equipment					
Testing equipment	Functional and well maintained: Syringes, clippers/scissors Callipers. Avian and Bovine syringes clearly identified.	Failure to bring evidence bags. (E+W only). Only one syringe identified from the start of the test.	Failure to carry functional testing equipment. (E+W only).		**Attempting to test with non-functional, missing, incomplete or equipment. Not listed in the TB Skin Testing Protocol.** **Neither syringe clearly identified as Avian and Bovine.**
Spare equipment	Full set of syringe spares or spare syringe. Spare scissors. Spare callipers.	Spare and primary callipers not clearly identified.			**NB: Attempting to complete the test with incomplete set of equipment.**

	Spare callipers clearly identified. Spares readily available.	Partly incomplete set of syringe spares/needles unlikely to impede test and ready access to spares. No spare callipers on first or second day- but ready access to spares.			
Equipment to swab/change the needles	Enough spare needles. Tester carries cotton wool and surgical spirit or an equivalent to swab the needles. Clean cotton wool at start of test.		Dirty cotton wool swabs used.	No swabs or spirit or equivalent used to disinfect the needles.	
Test Performance					
On Arrival	Syringes loaded from new vials before the test.			Attempt to start a test with guns loaded with tuberculin on arrival.	
Animals identified	All ear tags read and recorded. TT1 and TT2. If no official ear tag present, other unique identifier recorded. If temporary ID required, unique marker given and recorded.	An unintentional reading/recording error, which is suitably rectified and does not affect test result.	If no official ear tag present and failure to use a suitable unique marker.	Repeated reading or recording errors. Any errors which may affect the test result.	**Not all official ear tags/identities read and recorded.** **(TT1 or TT2)**
Injection site location	Consistent and appropriate siting of injections. Suitable secondary sites chosen when needed. Auditors can use some discretion when accessing the suitability of the secondary site -		One animal has an inappropriate injection site location with no reasonable explanation. 2nd injection placed in same injection site.	10% or more animals with inappropriate injection site locations and no reasonable explanation.	**Multiple, consistent inappropriate injection locations.** **Choosing an injection site that would be likely to invalidate the test result.**

	injections placed outside of the middle third of the neck may be invalid and where there is doubt cases must be referred to APHA for a decision. Both sides of the neck used for e.g. small calves.				
Injection site visibility	All clip marks are visible. All injections placed in clipped area.	One animal has a single clip mark to place both injections.	Two or more animals have a single clip mark to place both injections. One or two injections not placed in clipped area.	10% or more animals with no visible clip marks. Consistent intentional failure to make two clip marks, one per injection. Three or more injections placed outside clipped area.	**Consistent intentional failure to clip.** **No visible clip marks** **Consistent failure to ensure injections placed in clipped area.**
Skin measurement technique	Skin measured before injection. Callipers consistently used accurately. Use of two handed technique. Measurements recorded.		One animal not measured accurately, but does not affect the outcome of the test. One animal measured with one hand. Skin measured after injection.	Accuracy of measuring technique questionable. Two or more animals measured inaccurately, but does not affect the outcome of the test. Two or more animals measured with one hand.	**Clearly or intentionally inaccurate measurements taken.** **Consistent failure to measure using both hands.** **Inaccurate measurement affects test outcome.** **Skin estimates used instead of calliper measurements.** **Not all skin thicknesses measured/recorded and not corrected on the day.**
Intradermal injection technique	Use of injection technique which will consistently produce an effective intradermal injection. All injection sites examined showed evidence of an effective intradermal				**Consistent intentional failure to use a technique which would achieve an effective intradermal injection.** NB: Professional judgement should be used to determine if a successful intradermal injection has been achieved. In fatty or very thick skin (e.g. adult breeding bulls) with

	injection. Avian and Bovine tuberculins are administered in the correct injection sites. (Avian top, Bovine bottom). Tester is fully aware of the protocol to follow if the syringe has been filled with the wrong tuberculin.				apparent good technique the nodule can be subtle. **Wrong tuberculin injected in wrong site and not corrected by reinjection at alternate site or error not recorded on TB52 - critical for the animal(s) affected.** **The syringe is accidentally filled with the wrong tuberculin and the protocol is not followed.**
Inspection and Palpation of injection sites Day 1	All sites **visually** inspected to verify that the area is clearly blemish-free and relevant findings recorded. All sites palpated after injection to verify effective intradermal injection unless nodule visible. When not confirmed a suitable secondary site is chosen. This action is recorded.		No inspection/recording of lumps/blemishes on neck, but injections not carried out at sites with lumps/blemishes.	Injection at sites with prior lumps/blemishes and no inspection/recording of skin blemishes on the neck.	**Consistent repeated failure to palpate to verify intradermal injection.** NB: Professional judgement should be used to determine if a successful intradermal injection has been achieved. In fatty or very thick skin (e.g. in adult breeding bulls) with apparent good technique the nodule can be subtle.
Needle changes	Needles changed between farms. Needles changed during the test when appropriate i.e. bent blunt, visibly contaminated with blood/faeces etc.	Needles used when clearly bent or blunt but producing a nodule		Needles not changed but cleaned with swabs when visibly contaminated with blood or faeces.	**Needles used when visibly damaged and not producing a nodule.** **Grossly contaminated needles not changed.** **Evidence that needles not changed between farms.**
Needles swabbed	Needles swabbed between every animal. On inspection swabs are moist and clean. Cotton wool or cotton swabs used- in holsters or separately Surgical spirit used.	Needles swabbed at irregular intervals. On inspection swabs have been allowed to become dry or very dirty. Non-approved disinfectant used.	On inspection swabs are dirty.	No attempt to swab needles between animals. No swabs or spirit carried for this purpose.	
Palpation and measurement of injection sites Day 2	All animals palpated. All skin reactions are detected if present. If reaction/s is/are present both skin sites are measured and recorded. The nature of the skin		All animals palpated, but failure to detect, measure or record one or two skin reactions or findings (no impact on test result). Both sites not measured when a single reaction	Failure to palpate, detect, measure or record skin reactions or findings in two or more sites (no impact on test result).	**Not all animals palpated.** **Clearly inadequate attempt to palpate.** **Consistent intentional failure to detect, measure or record skin reactions.** **Failure to detect, measure or record skin reactions which impact on test result.**

Interpretation of skin measurements	Day 1 and Day 2 measurements are compared while the animal is restrained. Any Day 1 remarks reviewed. Correct interpretation using prescribed level of severity. Carries an appropriate test interpretation chart. NB: handheld device works out Reactors and Inconclusive Reactors (IRs) so no chart required.	Failure to possess or use an appropriate interpretation chart or alternative system (no impact on test result).	Day 1 and Day 2 measurements are compared once the animal is released (no impact on test result).	Failure to identify Reactors or IRs due to incorrect interpretation used (test validity not affected but further OV training may be required).	**Failure to possess Day 1 data/skin measurements.** **Failure to compare Day 1 and Day 2 measurements.** **Failure to review Day 1 remarks.**
Additional Tasks					
Reactor tagging TT2 only **NB: Scotland - metal reactor tag is applied by APHA staff only**	Tags correctly applied in a secure site with minimal trauma. Both tag parts carry the same number. Tag number recorded against animal ID. Tissue sample successfully collected. Sample placed in a fully labelled evidence bag. Sufficient reactor tags carried or readily available i.e. at least five tags (unless fewer than five animals tested) and then: a) at least 5% of animals tested up to a maximum of 25 tags in High Risk Area (HRA)/High TB Area Wales (HTBAW) and Edge Area/Intermediate TB Area Wales (ITBAW) and b) at least 1% of animals tested in Low Risk Area (LRA)/Low TB Area Wales (LTBW).	One or more tags placed in inappropriate sites. Insufficient reactor tags carried and not readily available.	One or more tag applications causes unnecessarily excessive bleeding. Tag number not recorded against animal ID. Dirty tagging equipment. Failure to seal the bag before leaving the farm.	Failure to apply reactor tags to eligible Reactor animals. No reactors tags carried or readily available. Samples not placed directly in an evidence bag. Bag not labelled correctly or fully before leaving farm. Failure to label the evidence bag correctly, i.e. ID of the animal on the label from a different animal to that tagged.	

Clinical examination of Reactors, IRs, other suspect animals **NB: Clinical not applicable for lay testing staff however required to report any suspicious signs to a vet**	All suspect animals visually examined; clinically examine animals if signs compatible with TB or other notifiable diseases are observed. (Vet only) Possession of a stethoscope and thermometer - which are used during the examination (vet only). All relevant findings recorded.		Failure to carry a stethoscope and thermometer when applicable or to use these on clinical examination (vet only). Failure to identify/record/report animals with minor, but relevant symptoms.		**Failure to identify/record/report suspect animals with obvious relevant symptoms of TB or other notifiable disease.**
Establishing eligibility Reasonable (verbal assurances from owner) efforts must be made to resolve missing or manually entered animals	For herd tests: Eligible animal groups identified. Reasons for not testing any eligible animals established. Identity of ineligible individuals established. Reasons why animal tested on Day 1, but not presented on Day 2 established. Calves tested if eligible.		Attempts made to ascertain eligibility, but some ineligible animals unintentionally tested or some eligible animals omitted. Reasons for not testing eligible animals on Day 1 not established.	No attempt made to establish whether cattle are eligible for testing.	**No attempt made to establish why animals tested on Day 1 are not presented on Day 2.**
TB52 worksheets/ equivalents	Using TB52, document of similar format or a suitable handheld device. For herd tests: Possessing up to date herd profile data with the download taking place no more than 2 working days prior to TT1 except in exceptional circumstances. For manual entries: Recording ID, breed, age, sex (and, if using a download, a comment that they have been added manually).	For herd tests: failure to possess up to date herd profile data (download more than two working days prior to test) For manual entries: ID recorded, but not breed, DOB/age or sex, CPH, location, test date.	Failure to use TB52 worksheet, or document of similar format to the TB52, or handheld device to record information required. Minor errors in paperwork. Failure to retain a copy of the TB52 or equivalent for three years and 60 days.	Attempting to complete records on a blank piece of paper, card or other object. Significant errors in paperwork. Any error in paperwork that affects the test result.	**Complete absence of paperwork.** **Inadequate/no checks made on completion of TB52 by farm staff/family during a test.** **Original test chart left on farm between TT1 and TT2. A copy/photo can be left or sent for reference.**

	CPH, location, test date. Maintain adequate control of TB52 or equivalent during and after test - and adequate checks made if being completed by farm staff/family.				
Herd Keeper Information					
Test results communicated - Reactors, IRs identified	Reactors or IRs identified to keeper as test is read.	Reactors or IRs not communicated to keeper until end of test.		Keeper not informed of the finding of Reactors and IRs at all.	
TB181 information sheet issued and explained	When appropriate TB181 information sheet issued and explained at the end of the test. Owner told to isolate Reactors and IRs. IRs not to be grouped with Reactors. Resolved IR Restricted for Life policy explained (England only).	TB181 issued, but not explained. Failure to carry TB181 forms. OV unaware of when to issue TB181. Incorrect TB181 version used.		TB181 form not issued when it is appropriate to do so. Incorrect advice given. Owner not informed to isolate Reactors and IRs. Resolved IR Restricted for Life policy not explained (England only).	
Farm medicines record	Owner informed of the need to enter tuberculin details in medicine record. Correct batch numbers and expiry dates given.		Owner not informed of the need to record tuberculin batches and expiry dates in medicines record. Incorrect tuberculin details given to owner.		
Required forms	OV gathers all relevant forms.	Failure to carry TR247 (Owner's checklist). OV unaware of when to issue TR247 (Owner's checklist).			

Serious professional misconduct	• APHA will refer to the Royal College of Veterinary Surgeons (RCVS). • APHA will take note of the following from the RCVS in relation to Serious Professional Misconduct when considering corrective action: 1. In general terms unethical or unprofessional behaviour is behaviour that falls short of the ethical or professional standards, guides or codes of conduct, accepted by a particular profession. Unethical or unprofessional behaviour is essentially a departure from the standard of behaviour expected as the normal among members of the profession. 2. For a veterinary surgeon, unethical or unprofessional behaviour might mean a failure to follow the guidance or advice within the RCVS Code of Professional Conduct. 3. Such a failure will not amount to serious professional misconduct, unless it is serious enough to question whether the veterinary surgeon should remain registered with the RCVS i.e. question whether he or she is fit to practise or work as a veterinary surgeon. Examples of serious professional misconduct include false certification, dishonesty and fraud.	• Deliberate falsification or reckless completion of records. • Deliberate or reckless misreading or misreporting of the test result of an animal. • Inhumane treatment of animals, abusive or threatening behaviour. • Deliberate and systematic disregard of the tuberculin testing protocol. • Accepting any bribe or financially motivated inducement (such as the threat of loss of future business) to influence the results of current or future tests. • Seeking to attract or retain clients on the understanding that testing will be carried out below standard, at excessively high speed or that results may not be reported accurately. • Coercion of a colleague or employee to commit any of the above offences.
Test result invalid	• In such cases, no payment will be made for the test and all or part of the herd may be restricted pending retest after 60 days. Reasonable efforts will be made to salvage the test by, for example, calling on a competent person to re-measure the cattle. • APHA will not normally apply such measures on a precautionary basis to herds previously tested but may do in the event of clear evidence that a test was carried out with reckless disregard to the protocol. • APHA will consider and document if there are any 'exceptional circumstances' which may affect corrective action (including whether there has been discussion with APHA) - fully document where appropriate. • APHA will clearly establish whether the validity of the test relates to actions of the OV on the day, or from matters outside the OV control when making the assessment of performance.	• This would be the case if they had not been injected with tuberculin in good condition, if injection sites cannot be identified, if official identities had not been recorded, if skin measurements are grossly inaccurate or inconsistent or not made at all. • It should be noted that the liability for OV negligence falls with the OV and not APHA.

Part 2

Sanctions for non-compliances with TB testing requirements will be proportionate to the severity of the non-compliances or their multitude, taking into account possible rectification **in situ** and/or mitigating factors. They will be assessed on a case by case basis.

If the auditor observes practice that would affect the validity of the test, they must take immediate action, not allowing it to be continued. Consideration must also be given to requiring re-testing/re-reading of unsatisfactorily tested animals to avoid declaring a test void and whether payment for the test should be withheld.

Depending on the nature of the non-compliances the action taken may include the following as listed below:

- advice (verbal)
- correction at the time
- putting animals back through the crush
- advice (written)
- re-training
- non-payment for test
- suspension or revocation of OCQ(V) - TT
- request improvement plan
- interview with Delivery Partner (DP) Senior OV and in Scotland practice principal
- refer for investigation by APHA
- suspension from OCQ(V) - TT
- suspension from all OCQs
- referral to the Royal College of Veterinary Surgeons (RCVS).