

Sample Code Definitions and Actions to be Taken

The tables below are supplied and controlled by the UK TSE NRL, following consultation with Defra, MHS, VLA and using input and existing documentation from UK TSE rapid testing laboratories. They only apply to testing of Human Consumption cattle.

All previous lists of bovine HC Sample Condition Codes should be replaced with this document, in testing labs and in report receivers' documentation.

They categorise and define the different codes applicable to the condition of samples on receipt at a UK TSE Rapid Testing Laboratory from a supplying abattoir. The codes have description to clarify the classification and instructions on how to proceed with samples once classified and recorded.

If further clarification is required, or a situation arises that is not clearly categorised below, the laboratory manager should contact the VLA, Defra, or the Meat Hygiene Service as appropriate, to determine a relevant solution. Such contact should be copied to the VLA (using the BSE Lab Approvals mailbox address)

BSE.Laboratory.Approvals@vla.defra.gsi.gov.uk



Signed

M.J. Flowers, for the UK TSE NRL, Friday, 30 January 2009

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Table 1 – Good Samples with Normal Conditions – testing one cut

Condition codes, names and definition are outlined below.

For all of the conditions in Table 1,

- Test normally – 1 cut – 1 homogenate
- All tests for Human Consumption bovine samples should be reported before 05:00 hrs on the day following receipt.
- One Before and 2 after rule ONLY APPLIES IF A POSITIVE IS OBTAINED (Notify MHS immediately)

Code	Name	Definition	Possible Test Results
1	Satisfactory consistency, obex available	Include fresh (or slightly autolysed) perfectly taken samples, and fresh (or slightly autolysed) samples which have minor damage. Neither the autolysis, nor the damage is sufficient to compromise confirmatory IHC testing should the rapid test be positive.	POS, NEG, INC
2	Satisfactory consistency, obex damaged	All samples will be suitable for rapid testing, obex may be moderately damaged but damage is insufficient to compromise confirmatory IHC testing should the rapid test be positive.	POS, NEG, INC
3	Autolysed but identifiable as brainstem	All samples will be suitable for rapid testing, but the degree of autolysis may preclude the use of confirmatory IHC test. If such a sample is positive to rapid test, then confirmatory testing will be by Western blot, if tissue is not firm enough to take a sample for fixation and IHC testing.	POS, NEG, INC

Table 2 – Samples classified as no-test for which entire sample get homogenized and tested in triplicate:

- All of the Samples in table 2 have a sample but are considered NOT.
- All tests for Human Consumption bovine samples should be reported before 05:00 hrs on the day following receipt.
- For condition codes 4 & 7, any identifiable non-brainstem material (e.g. cerebellum or cerebrum) should be removed and discarded, then ALL the remaining tissue should be homogenized ON THE DAY OF RECEIPT and 3 aliquots taken from the homogenate. If sample is identified as brain material but no identification of specific brain area is possible (code 8), the ENTIRE sample should be homogenized and treated as above.
- All samples get reported as NOT under the normal reporting rules but Positives will be reported for surveillance purposes.
- One Before and 2 after rule ONLY APPLIES IF A POSITIVE IS OBTAINED. (Notify MHS immediately)
- The NOT (No test) carcass is destroyed.

Code	Name	Definition	Possible Test Results
4	Semi-liquid, no identifiable structure	All samples will be suitable for rapid testing and only reported if positive, but the degree of autolysis will mean that the chosen site of sampling for rapid testing cannot be identified (and could therefore be from any part of the brain). The sample is not suitable for IHC test, and if such a sample is positive to rapid then confirmatory testing will be by western blot	NOT, (INC, POS)
7	Unsuitable due to packaging damage	Samples which were found unsuitable for testing due to packaging damage.	NOT, (INC, POS)
8	Any other sample of brain origin only e.g. Paste/cerebellum etc.	These samples are either brain tissue other than brainstem, brainstem with entire obex region missing or their origin is not apparent.	NOT, (INC, POS)

Table 3 – No Samples/Insufficient Sample

Conditions 5 and 6 – there is no sample or there is insufficient sample available– it cannot be tested

- All samples get reported as NOT under the normal reporting rules, but reported to the abattoir/MHS as “Insufficient”. The carcass gets destroyed, the one before 2 after rule applies (except in relation to hides).

Code	Name	Definition	Possible Test Results
5	No sample or tissue not identifiable as brain e.g. Skin/muscle/blood clot.	No sample present in pot, or material in pot is identified as not being brain tissue. This sample is not required to be tested.	NOT (Insufficient)
6	Insufficient Sample	Self explanatory. Minimum amount required for rapid test is about 1 gram.	NOT (Insufficient)

NB – “No Test” & “Insufficient” results are currently distinguishable on reports to the MHS (they are reported either ‘insufficient’ or ‘no-test’). The classic ‘insufficient’ would be an empty pot. This enables MHS staff to ensure that 1B2A is applied as appropriate.

Table 4 - Other Issues

Other possible anomalies that may occur and a description of the action to be taken is described below.

	Name	Action	Possible Test Results
	Missing pot or late sample	Notify the MHS contact immediately, liaise with the abattoir and ensure receipt of the sample/pot for normal testing if it is present, otherwise it becomes condition code 5 in Table 3	Pos/Neg/Inc
	2 in a pot	Notify the MHS contact immediately. Give a dummy- or temporary- ID to the second sample. Test each brain stem. DNA analysis will be conducted on the corresponding carcass, the 2 before and 10 after carcasses and the 2 carcasses at the end of the kill, their corresponding brain samples and the 2 brain samples in one pot to confirm the true identity.	Pos/Neg/Inc
	Label falls off	Notify the MHS contact immediately. Proceed with testing, samples remain outstanding until correct ID is confirmed	Pos/Neg/Inc
	Incorrect paperwork	<p>the commonest things are:</p> <ul style="list-style-type: none"> ○ Missing test code ○ Serial number report does not tally with serial numbers on bags (often a one digit transposition) ○ Missing kill number <p>Notify the MHS contact immediately. Results must be held as outstanding until this is resolved</p>	Pos/Neg/Inc

Table 5 - Compiled Sample-Codes List

Code	Name	Definition	Possible Test Results
1	Satisfactory consistency, obex available	Include fresh (or slightly autolysed) perfectly taken samples, and fresh (or slightly autolysed) samples which have minor damage. Neither the autolysis, nor the damage is sufficient to compromise confirmatory IHC testing should the rapid test be positive.	POS, NEG, INC
2	Satisfactory consistency, obex damaged	All samples will be suitable for rapid testing, obex may be moderately damaged but damage is insufficient to compromise confirmatory IHC testing should the rapid test be positive.	POS, NEG, INC
3	Autolysed but identifiable as brainstem	All samples will be suitable for rapid testing, but the degree of autolysis may preclude the use of confirmatory IHC test. If such a sample is positive to rapid test, then confirmatory testing will be by Western blot, if tissue is not firm enough to take a sample for fixation and IHC testing.	POS, NEG, INC
4	Semi-liquid, no identifiable structure	All samples will be suitable for rapid testing and only reported if positive, but the degree of autolysis will mean that the chosen site of sampling for rapid testing cannot be identified (and could therefore be from any part of the brain). The sample is not suitable for IHC test, and if such a sample is positive to rapid then confirmatory testing will be by western blot	NOT, (INC, POS)
5	No sample or tissue not identifiable as brain e.g. Skin/muscle/blood clot.	No sample present in pot, or material in pot is identified as not being brain tissue. This sample is not required to be tested.	NOT (Insufficient)
6	Insufficient Sample	Self explanatory. Minimum amount required for rapid test is about 1 gram. This sample is not required to be tested.	NOT (Insufficient)
7	Unsuitable due to packaging damage	Samples which were found unsuitable for testing due to packaging damage.	NOT, (INC, POS)
8	Any other sample of brain origin only e.g. Paste/cerebellum etc.	These samples are either brain tissue other than brainstem, brainstem with entire obex region missing or their origin is not apparent.	NOT, (INC, POS)