

Herdsure[®] protocol for bovine viral diarrhoea (BVD) in cattle herds

Herdsure[®] Chapter 1



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Introduction

This protocol describes the process used to establish the disease status for bovine viral diarrhoea (BVD) in cattle and for the control and subsequent monitoring of BVD in those herds.

This protocol is suitable for both dairy and suckler herds.

The three principal elements of this Herdsure® protocol for BVD are:

- sampling and testing to determine status
- sampling and testing to identify and remove persistently infected cattle and, therefore, active infection from the herd
- advice on appropriate measures to reduce the risk of re-introducing BVD virus (BVDV) infection together with sampling and testing to monitor the improved BVD health status of the herd.

BVD is a widespread and significant disease of cattle and other species, manifesting itself in a wide range of clinical signs and syndromes. This protocol does not address the management and treatment of clinical BVD but addresses the control of active BVDV infection.

Since acute infection with BVDV is accompanied by a period of immunosuppression in infected cattle, effective control of BVD is also likely to reduce the risk of other diseases such as viral pneumonia and neonatal diarrhoea.

This protocol refers only to the control of BVDV infection in cattle. If other susceptible animals are present on the farm, especially if they share grazing with cattle, BVD monitoring and, if necessary, control measures should also be applied to these animals. Your AHVLA Regional Laboratory is able to provide appropriate testing and advisory services for this purpose.

The BVD protocol comprises three levels of 'health status':

Level 1	Establishes the BVD status of the herd.
Level 2	Aims to improve the health status of the herd for BVD.
Level 3	Monitors and aims to maintain the improved (or established as satisfactory at Level 1) health status of the herd for BVD.

- All blood samples for Levels 1, 2 and 3 of this BVD protocol should be clearly identified with barcoded labels and referenced to the ear tag number of the animal of origin.
- All samples for BVD testing should be collected in heparinised (green top) blood tubes.
- Tissue samples from calves for BVD virus testing should be collected using appropriate ear tags and sample pots. Please note: BVD tissue samples must be

sent to Herdsure for testing. We are unable to import results from another lab onto the Herdsure Management System.

- Definitions of age and type of cattle referred to in this protocol are explained in this handbook, as is the definition of the 'herd' for registration purposes.

The disease

Introduction

Bovine viral diarrhoea (BVD) is the name used to describe disease caused by infection with bovine viral diarrhoea virus (BVDV), a member of the *pestivirus* group of viruses. The disease is manifested by a number of different syndromes determined by the stage of pregnancy of the infected animal and immune status.

The economic losses resulting from BVDV infection of cattle are considerable but are difficult to quantify because of the complexity and diversity of the consequences of BVDV infections. It is only relatively recently that the escalation of research in the field of *pestivirus* infections has clarified the pathogenesis and epidemiology of the associated diseases.

Impact of the disease

BVDV intrauterine infection is central to the maintenance of disease in cattle herds and avoidance of foetal infection is therefore crucial to the control of disease. If cattle are infected just before breeding, conception rates are reduced. Infection at the time of breeding may lead to early embryonic death; abortion can be the result of intrauterine infection at any stage of pregnancy. However, intrauterine infection during the first third of pregnancy is critical because at this stage the immune system of the foetus has not yet achieved the ability to remove the virus. Furthermore, because of the capability of the virus to evade the developing foetal immune system, it will never achieve the ability to remove the virus. As a result of this the foetus is eventually born with what is termed 'persistent infection'.

It is these persistently infected (PI) cattle, which do not produce antibody against BVDV, that maintain the cycle of active infection. They produce large amounts of virus throughout their lives and, although they may appear to be normal, they often succumb to a fatal systemic disease before reaching maturity. This is known as mucosal disease. However, significant numbers of PI cattle do survive well into maturity. On occasion, particularly where BVDV infection takes place towards the end of the first third of pregnancy or at the beginning of the middle third of pregnancy, calves may show a range of congenital defects at birth. These include cataracts and cerebellar hypoplasia, resulting in locomotor incoordination, as well as growth defects such as domed heads, shortened tails or limbs and changes to the texture of the coat.

PI cattle maintain the cycle of infection when they come into contact with pregnant cattle and the opportunity for the creation of new PI foetuses arises once again.

When non-pregnant cattle of any age are infected by BVDV, the consequences are usually less devastating. A short period of viraemia results and this is termed 'transient' or 'acute' infection. This may go unnoticed but, during this short phase of transient infection, a variable period of leucopaenia results in immuno-compromise of the transiently infected animal. During this period it will have an increased susceptibility to other diseases such as enteric infections or virus pneumonia. Transient infection of bulls may result in reduced fertility with excretion of virus in the semen for a variable period of time. Very occasionally, when young bulls are transiently infected, excretion of BVDV is maintained for life.

Testing for the disease

Detection and removal of PI calves are key to the control and eradication of BVD. AHVLA utilises tests that identify BVD antigen in blood samples. In addition, PCR⁴ tests, which identify the genetic material of BVDV in blood, milk and tissue samples, have been developed by AHVLA. Finally, antibody tests are used not only to screen cattle to assess their exposure to BVDV but also as indicators of the possibility of the presence of antibody-negative PI calves. Antibody to BVDV can be measured in both blood and milk samples.

The following tests are used for the Herdsure® BVD protocol:

TC0123	Bulk milk antibody ELISA
TC0390	Individual blood antibody ELISA
TC0772	Blood antigen detection ELISA (Erns)
TC0709	Viral RNA in milk PCR (bulk milk, individual or in pools of up to 10 milks)
TC0655	Viral RNA in blood PCR
TC0758	Viral RNA in pools of up to 10 bloods
TC0872	Erns antigen ELISA in tissue

All blood samples should be taken into heparinised (green top) blood tubes. Collection bottles for bulk milk samples should contain preservative (e.g. bronopol). Tissue samples should be collected using appropriate ear tags and sample pots. Please note: BVD tissue samples must be sent to Herdsure. We are unable to import results from another lab onto the Herdsure Management System.

See Appendix 4 for details of the collection of individual milk samples for PCR examination in pools of 10.

⁴ Sometimes called 'molecular photocopying', the polymerase chain reaction (PCR) is an inexpensive and rapid technique used to make many copies of small, specific target areas of DNA or RNA. A single strand of DNA or RNA can be amplified into many millions of strands during a PCR run. Real-time PCR (RT-PCR) allows the accumulated PCR product to be detected in 'real-time' through the use of fluorescent dyes. RT-PCR has the advantage of being highly sensitive and extremely specific and rapid, with the added bonus of the ability to detect more than one organism, strain or type in a single tube.

Biosecurity

Avoiding the introduction of the virus into a 'clean herd'

Control and eradication of BVD is also dependent on meticulous attention to biosecurity principles. The virus can be introduced by various means including via the clothing of personnel or shared machinery. To minimise this risk, herd managers may decide that vaccination of all the breeding cattle on the farm is a necessary measure.

Added cattle are a potentially dangerous source of new infection. The introduction of a PI animal into a herd can have disastrous consequences. Furthermore, a pregnant animal might carry a foetus that proves to be a PI calf when it is tested at birth. The programme outlined in this handbook includes a strategy to allow for the discovery of infected cattle before they are able to infect contact stock.

Principles of biosecurity

- The boundaries of the farm premises must prevent cattle from straying off or onto the farm and must prevent nose-to-nose contact over fences or walls. For herds wishing to undergo or maintain CHeCS accreditation, installation of double fencing with a 3 metre gap between scheme cattle and neighbouring cattle is required.
- Isolation facilities must be used for all added animals and must prevent contact with other stock. A dedicated building separate from other cattle buildings is ideal but a separate paddock that prevents contact with other stock may suffice. No air space, drainage or dung storage may be shared with other cattle. Dung may only be removed from the dedicated storage area, to be spread or added to the main dung store, when all animals in the isolation facility have passed the required health tests. If any of the animals are confirmed as infected, dung from the isolation facility must not be disposed of onto pasture that is to be grazed by cattle within 2 months. Where paddocks have been used for the quarantine of infected animals, other cattle must not be allowed to graze there for at least 2 months.
- A defined isolation period must be observed for all additions to the herd whose health status is known and appropriate testing carried out as specified in the protocol. It is only when both the isolation period and the requisite tests have been completed, with results indicating freedom from infection, that those animals can enter the herd. Additional rules apply to the purchase of bulls and are found in the added animals section.
- Ideally, cattle, sheep and camelids should not graze together unless the disease status of the co-grazers is known.
- Staff who work on other livestock enterprises must use farm-dedicated protective clothing and footwear. Care should be taken to prevent disease transfer via fomites and personnel.
- Colostrum from non-health scheme herds, or from health scheme herds of a lower status, must not be used.
- Delivery and pick-up points should be at a site isolated from other cattle on the farm. Where possible, the driver should remain in the cab and should certainly never assist in removing cattle from pens unless using farm-dedicated protective clothing and footwear.

- Equipment such as drenching guns, surgical instruments and hypodermic needles must not be shared with cattle from another herd. Veterinary surgical instruments must be sterilised before use in the herd.
- Equipment, machinery, livestock trailers and handling facilities that are shared between Herdsure[®] cattle and other livestock must be cleaned and disinfected before use.
- Where embryo transfer is used, it is important to ensure that embryos are sourced from herds of equivalent or higher health status than the recipient herd.
- Known health status is specific to BVD. Where two or more herds are accredited for different diseases, the rules for movement and contact between herds are those which apply in relation to herds of unknown health status.
- Accredited cattle must not be grazed on pasture previously grazed by non-accredited cattle until a period of 2 months has elapsed. The same grazing restrictions apply to accredited cattle if slurry or manure collected from non-accredited cattle has been used on the pasture. Where herds are seeking CHeCS accreditation the veterinary practitioner will be asked to confirm that the appropriate biosecurity and management measures have been implemented on the farm.

The point at which herds are eligible for CHeCS accreditation is identified in the protocol.

Herd owners and managers who are participating in the Herdsure[®] BVD service must inform the supervising veterinary practitioner of any changes that could affect herd biosecurity.

Keeping track of your herd's progress in Herdsure[®]

An **annual herd progress report** will be issued to Herdsure[®] members. The progress report will detail the level achieved for each protocol for which the herd is enrolled on the date of issue.

For a small fee, an updated progress report can be produced. The updated progress report, like the annual report, will detail the level achieved for each protocol for which the herd is enrolled on the date of issue.

The protocol



Level 1

Level 1: Objective of HerdSure® testing

- Level 1 testing aims to establish whether or not there is evidence of active BVD in a herd.
- If active infection is present it is assumed that 25% of the adult cattle and 10% of the youngstock will have sero-converted. This level will also utilise any herd history and history of relevant test results already held by the veterinary practitioner or by AHVLA.

Level 1: Sampling and testing protocol

Also refer to the flowchart summary of the protocol at the end of Level 3.

1.1	If there is evidence of active BVDV infection in the previous 12 months herds should join at Level 2. Otherwise sampling should proceed as below.
1.2 	In dairy herds, a 25ml milk sample should be collected from each bulk milk tank for BVD antibody ELISA testing (TC0123). The collection bottle(s) should contain preservative (e.g. bronopol). Where this result is positive, herds progress to Level 2. Where the result is negative, sampling of youngstock should be carried out as at paragraph 1.5.
1.3 	In suckler herds, 10 cows and all the breeding bulls should be blood sampled for BVD antibody (TC390). If any of the samples are positive, herds move to Level 2. Where all the samples are negative, youngstock are sampled as at paragraph 1.5.
1.4	The veterinary practitioner identifies all the management groups of cattle on the farm (excluding the milking cows and the suckler cows) and the number of cattle in each group.*

*A single management group is considered to be a group of cattle grazing the same piece of land, or a group of cattle housed in the same building in such a way as to allow nose-to-nose contact between animals in the group. It should be noted that, where animals share the same air space but where nose-to-nose contact is not possible, the cattle should be considered to be in separate management groups.


1.5	A statistically valid number of blood samples are collected from animals in each management group of 9-18 months of age for BVD antibody ELISA testing (TC0390). The number sampled per group is determined by referring to Table 1 below. The animals sampled should be home reared and non- vaccinated.
1.6 	Milk and blood samples are submitted directly to the AHVLA laboratory for testing.

Table 1: Statistical sampling of youngstock according to group size

To be 95% confident that at least one animal will test positive, if at least 10% of the sampled group is carrying antibodies, the following number of cattle should be tested:

Group size	Number of youngstock to be sampled
<10	all
11-12	11
13	12
14-15	13
16-17	14
18-19	15
20-24	16
25-34	20
35-44	21
45-69	23
70-89	24
90-110	25
>110	26

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Level 1: Interpretation of results

- 1.7** Milking herds will be designated as 'no evidence of active BVDV infection' following a negative result for the bulk milk BVD ELISA, together with negative results for BVD antibody of youngstock. Herds in this category have the option to proceed to Level 3 directly; other herds proceed to Level 2.
- Suckler herds will be designated 'no evidence of BVDV infection' only when all of the blood samples collected from suckler cows, bulls and youngstock show results that are negative for BVD antibody. Herds in this category have the option to proceed to Level 3 directly; other herds should proceed to Level 2.
- Where herds consist of both milking cows and beef suckler cows, all milk and blood samples should show negative BVD antibody levels to allow these herds to proceed to Level 3; other herds should proceed to Level 2.
- If only one animal from all the samples tests positive for antibody then a retest may be carried out after 4 weeks. This option should be discussed with a Herdsure® consultant.

Level 2







Level 2: Objective of Herdsure[®] testing



- Level 2 testing aims to reduce the detrimental influence of active BVDV infection in the herd by identifying the PI cattle that are responsible for the maintenance of the infection. Once identified, these cattle must be removed.

Level 2: Sampling, testing and interpretation protocol

The sampling and testing protocol at Level 2 follows a sequence determined by the results of each test. For this reason, guidance on interpretation of the test results is included within the sampling and testing section below.

Also refer to the flowchart summary of the protocol at the end of Level 3.

<p>2.1</p>  	<p>In dairy herds, a bulk milk sample from lactating cows is collected and submitted for PCR testing for BVDV (TC0709). A record of the identities of those cows contributing to this sample should be kept on the herd records. NB: As the bulk milk test is validated for a maximum of 300 contributors, care should be taken to ensure that no greater than this number have contributed to the tank from which the sample is taken. Where more than 300 cows have contributed to the tank sample, a Herdsure[®] consultant will be able to advise on a sampling strategy.</p> <p>Suckler herds will enter Level 2 sampling at the blood sampling stage see paragraph 2.5 below.</p>
<p>2.2</p>  	<p>Where a positive result is obtained, further individual milk or blood testing of lactating cows will be carried out. Individual samples will be submitted directly to the AHVLA laboratory where batches of 10 samples will be pooled for PCR testing (TC0709 (milk) or TC0758 (blood)) for BVD virus (see Appendix 4 on the collection of individual milk samples). Ear tag numbers should be recorded on the worksheet against individual samples</p> <p>A positive result confirms the presence of viral RNA, indicating at least one BVDV positive animal (PI or acute) among the milking cows. The test does not differentiate between acute and persistent infection.</p>
<p>2.3</p>  	<p>On receipt of results for batch milk testing, blood samples should be collected from the individual animals contributing to any positive pools and submitted for BVD antigen ELISA (TC0772). All samples should be collected in heparinised (green top) blood tubes.</p> <p>Where blood testing is carried out as an alternative to batch milk testing individual samples contributing to any positive pools will be forwarded for antigen ELISA (TC0772).</p> <p>If testing fails to identify any positive pools a second bulk milk sample can be submitted for PCR testing (TC0709). This may occur if there is acute infection circulating within the milking herd rather than the presence of a PI cow.</p>

2.4	<p>Animals testing positive for antigen may be considered to be viraemic and culled. However, the veterinary practitioner may wish to retest these animals after 4 weeks to confirm that they are persistently infected. These animals should be isolated pending the confirmatory test. Any animals confirmed to be Persistently Infected must be culled.</p> <p>Where inconclusive antigen results are obtained, samples will be re-tested using TC0655, PCR examination for BVDV in individual blood samples.</p>
<p>2.5</p>  	<p>Animals from suckler herds enter Level 2 at this stage.</p> <p>All dry cows and cows not contributing to the bulk milk sample, suckler cows, bulls and youngstock over 30 days of age should now be blood-sampled and the samples submitted to the AHVLA laboratory. These samples will be tested in pools of 10 by PCR (TC0758) for BVDV. Individual samples will be retained at the laboratory and the constituent samples from any positive pools will be examined for antigen using the Erns ELISA test (TC0772). All samples should be taken into heparinised (green top) tubes. This test can reliably detect viral antigen in cattle and calves of 30 days of age or older despite the presence of maternally derived immunity.</p> <p>The veterinary practitioner may wish to use the option to retest antigen positive animals to confirm persistent infection. All cattle deemed to be PI must be culled.</p>
2.6	<p>Calves under 30 days of age at the time of total herd testing will not have been tested. These calves may be sampled on reaching 30 days of age to ascertain their BVD status using the antigen ELISA (TC0772).</p> <p>Alternatively the samples can be collected in batches of 10, these samples will be pooled in the laboratory and examined for virus by the PCR test (TC0758). Constituent samples of any PCR positive pools must be re-examined by the antigen ELISA (TC0772) to identify viraemic animals in the group. All calves giving positive results may be considered to be persistently infected and culled. However, before this action is carried out, the option to resample after 4 weeks to confirm persistent infection can be utilised here, with animals confirmed as Persistently Infected being culled.</p> <p>Calves awaiting sampling may be infectious to other susceptible animals and should be isolated where possible.</p> <p>Calves reaching 30 days of age should continue to be monitored (as above) or alternatively tissue samples may be taken from newborn calves and submitted for antigen Erns ELISA testing (TC0872). Calves should be tagged according to the standard animal identification rules. Tissue samples allow calves to be tested from birth thus eliminating the risk of PI calves infecting pregnant cattle whilst awaiting a blood test.</p> <p>Once calves have been tested for a period of 12 months following the removal of any PI cattle from the herd, the herd can proceed to Level 3.</p>





Level 3

Level 3: Objective of Herdsure[®] testing

- Level 3 testing aims to monitor and maintain the improved health status of the herd. The sampling and testing is designed to alert the veterinary practitioner to the re-introduction of active infection into the herd.

Level 3: Sampling and testing protocol

Also refer to the flowchart summary of the protocol at the end of Level 3.

3.1	<p>Monitoring of continued freedom from active infection should continue after active virus has been removed from the premises.</p> <p>Monitoring of dairy herds will consist of two components: 3-monthly bulk milk antibody testing and annual testing of a statistically significant number of cattle from each management group between 9 and 18 months of age. This test should be carried out 12 months after entry into level 3. The number of animals for sampling is ascertained according to group size as shown in Table 1 at Level 1.</p> <p>Monitoring of suckler herds consists of annual testing of a number of cattle from each management group between 9 and 18 months of age as above.</p>
3.2  	<p>In dairy herds, a bulk milk sample should be collected every 3 months and submitted to the AHVLA laboratory for examination for BVD antibody. The first sample is due immediately after the herd enters Level 3. A significant rise* in the antibody titre to BVD in subsequent samples will trigger immediate youngstock monitoring even if the annual sampling is not yet due, see paragraph 3.3 below. In this event, a bulk milk sample from the milking herd should be submitted for BVDV PCR testing (TC0709). If this is positive, sampling and testing as at Level 2 should be carried out. There is no requirement to test cattle previously identified as non-PIs, either by milk or blood testing, provided the results have been recorded on the Herdsure[®] Management System.</p>
3.3  	<p>In all suckler and dairy herds, blood samples from each separately managed group of youngstock between the ages of 9 and 18 months should be collected. Sample sizes for testing are calculated as before. These should be submitted for BVD antibody testing. The first of these tests will be due 12 months after the completion of Level 2 testing.</p> <p>If BVD vaccination is used on the farm, the samples should be collected before these youngstock receive their first dose of vaccine. If any positive samples are identified, sampling and testing as at Level 2 should be carried out. Again, there is no requirement to test cattle previously identified and recorded as non-PIs.</p> <p>Identification numbers of cattle fulfilling these criteria will be provided on the Herdsure[®] sampling worksheet.</p> <p>This procedure should be repeated annually.</p>

Level 3: Interpretation of results

3.4	<p>Milking herds will be designated as 'no evidence of active BVDV infection' provided there is no significant rise* in bulk milk antibody titre together with negative results for the BVD antibody test of youngstock.</p> <p>Suckler herds will be designated 'no evidence of BVDV infection' only when all of the blood samples collected from youngstock are negative.</p> <p>Where herds consist of milking cows and beef cows, they will be designated as 'no evidence of BVDV infection' only when all of the milk and blood samples fulfil the same criteria as above.</p>
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* A significant rise is defined as a rise which results in the milk antibody status of the herd being elevated from negative to low/mid or high positive from low positive to mid or high positive or from mid positive to high positive.

CHeCS Accreditation

Herds entering Level 3 direct from Level 1 will be eligible to apply for BVD CHeCS accreditation following completion of 12 months testing at Level 3, provided all the results are negative.

Herds entering Level 3 following a PI search at Level 2 will be eligible for BVD accreditation status after 24 months of testing at Level 3, provided all results are negative.

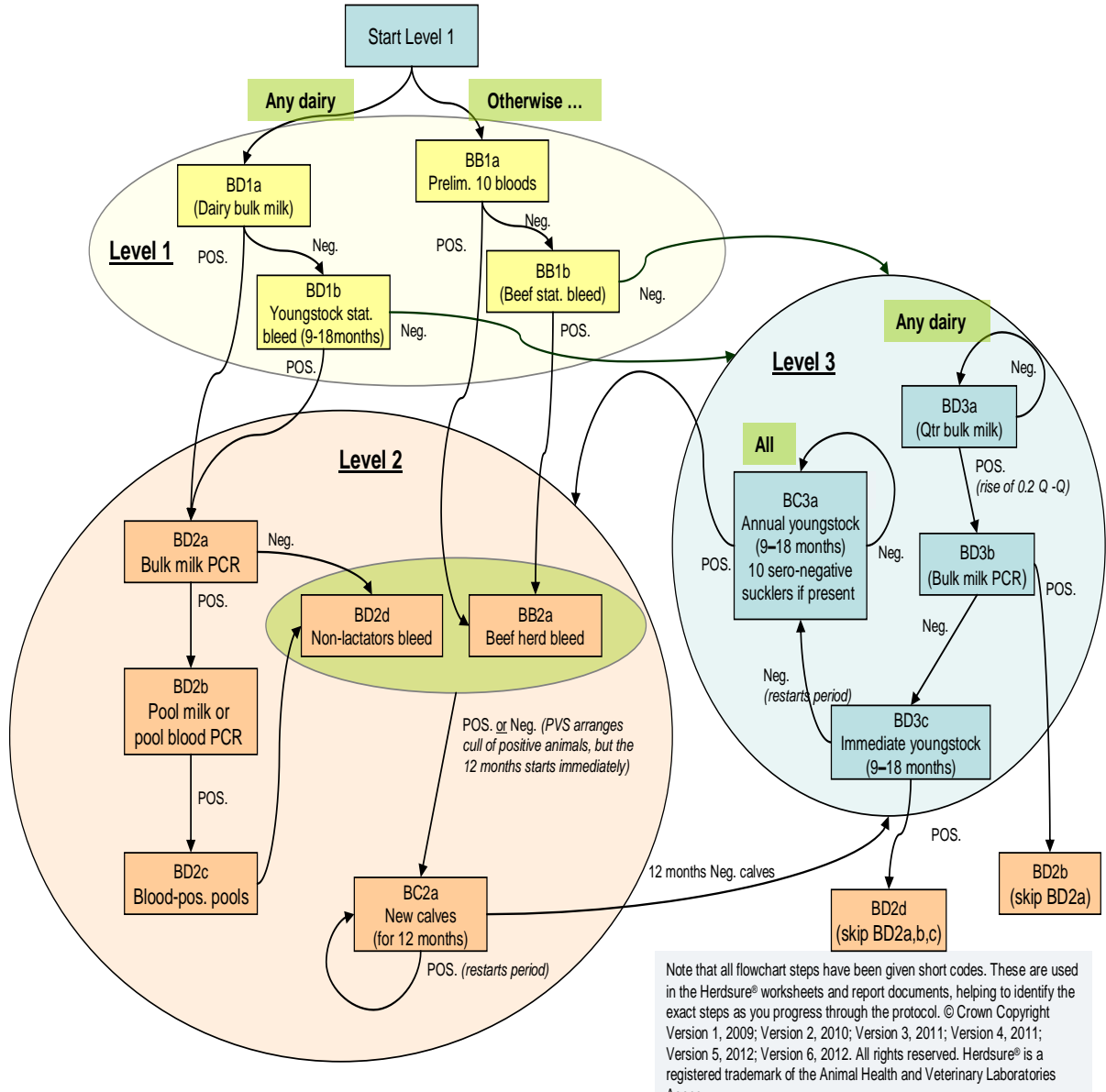
Please note there are additional biosecurity rules for herds undergoing accreditation and stringent requirements for farmer and vet declarations. More information is available on the CHeCS website (www.cheecs.co.uk).

Key to flowchart summary of the Herdsure[®] protocol for BVD

Step	Step name	
BD1a	Dairy bulk milk antibody	In dairy herds Level 1 starts with examination of a bulk milk for BVD antibodies (TC0123).
BD1b	Dairy youngstock statistical bleed - 9-18months of age	This step follows a negative result for the bulk milk antibody test. It samples sufficient youngstock to detect BVD (with 95% confidence) if it is on the farm.
BB1a	Preliminary beef bleed	In suckler herds 10 cows and all breeding bulls are sampled to give an initial indication of whether BVD is on the farm.
BB1b	Beef statistical bleed	This step follows a negative result for BB1a. Sufficient youngstock are be sampled to allow BVD to be detected (with 95% confidence) if it is on the farm.
BD2a	Bulk milk PCR	A bulk milk will be tested to determine if there is BVD virus.
BD2b	PCR pooled milk or pooled blood samples	If the bulk milk PCR is positive then it is followed up by individual milk or blood samples. These are pooled at VLA and tested by TC0709 for milk or TC758 for blood.
BD2c	Blood from positive milk pools	Blood samples are requested from animals in positive pools. These will be tested for BVD antigen via TC0772.
BD2d	Non-lactators bleed	All animals over 30 days of age that were not tested via milk testing are now bled and pool-tested via TC0758. Samples in positive pools are individually tested by TC0772.
BB2a	Beef herd bleed	Blood samples from all animals over 30 days of age are tested in pools by PCR TC758; samples from positive pools are individually tested for antigen by TC0772.
BC2a	12-month calf monitoring	Once PI animals are removed from the herd, the farm must send in blood or tissue samples from all new calves for testing for BVD virus. The herd qualifies for Level 3 when a period of 12 months without the disclosure of any PI calves has been achieved.
BD3a	Quarterly bulk milk monitoring	Bulk milks are submitted quarterly for TC0123. A significant increase in antibody levels over time will trigger a further sample for PCR.
BD3b	Bulk milk PCR	This bulk milk PCR is undertaken following positive results from quarterly antibody monitoring.
BD3c	Immediate youngstock testing following bulk milk PCR	This step is triggered by a negative bulk milk PCR at BD3b. It happens immediately, and resets the annual timetable for routine annual youngstock testing (9-18months of age). Presence of PI cows in the milking herd has now been discounted. This step uses sentinel animals to monitor the introduction of virus to the youngstock.
BC3a	Annual testing of youngstock.	This is routine annual statistically significant sampling of animals between 9 and 18 months of age.

Flowchart summary of the Herdsure[®] protocol for BVD

Bovine viral diarrhoea (BVD)



Procedures for added animals

Continued freedom from infection will depend on certain biosecurity measures and establishment of the BVD status of any added cattle before they come into contact with the herd.

The Herdsure[®] service recommends that all added animals are isolated and tested before joining the herd. Testing and isolation of added animals is mandatory for herds seeking CHeCS accreditation. The only exception to this is where animals are sourced from CHeCS disease-free certificated herds. Refer to the CHeCS technical document for the rules that apply.

All classes of cattle should be tested for BVD antigen, ideally prior to leaving the farm of origin or, if not, on entry into isolation. Any antigen positive cattle should not be brought onto the farm.

Non-pregnant cattle

Following a 4 week period of isolation, non-pregnant cattle should be tested for BVD antibody and the results entered onto the Herdsure[®] database.

If significant numbers of sero-positive milking cows are brought into a herd, a significant rise in the bulk milk antibody readings for the herd will result. This is important in assessing the significance of rising BVD antibody levels in herds that have achieved Level 3 status.

Pregnant cattle

Pregnant cattle that are antigen negative may be brought onto the farm but should be isolated for a period of 4 weeks. Prior to release from isolation, a blood sample for BVD antibody should be collected and the results recorded. If the sample is negative no further action is required. If the antibody results are positive then these cows should remain isolated from the rest of the herd until they calve. A blood sample should be taken from the calf as soon as possible after birth and tested for BVDV by individual PCR (TC0655). Calves showing positive results are PIs and should be removed from the farm immediately.

Breeding Bulls

Bulls that have been transiently infected and, as a result, are antibody positive may excrete virus in semen. This is a rare occurrence but, for this reason, they should not be used for breeding until they have been on farm for a minimum period of 9 weeks. They should remain in isolation for the first 4 weeks and be blood tested for BVD antibody after this time. There is a documented incidence of prolonged excretion of BVD in semen following transient exposure. If herds wish to exclude this risk, a Herdsure[®] consultant will be able to advise the practitioner on screening semen for BVDV.

Establishment of a new herd from accredited stock

Where it is intended to establish a BVD-free accredited herd by acquiring cattle accredited free of BVD, the premises must be inspected by the veterinary practitioner before the new stock is introduced in order to ascertain that the biosecurity of the premises and farm boundaries meet the requirements of CHeCS. Accreditation testing for BVD must be carried out no sooner than three months after establishing the herd. Once testing has been completed, with satisfactory results, the herd can be recognised as having achieved accredited status.

Shows and sales

Contact with other stock puts the status of the herd at risk. CHeCS-accredited cattle attending CHeCS-accredited sections may return to their herds of origin without isolation and testing. All other cattle will lose their HerdSure® health status. Consequently, on returning to their herd of origin, they will be subject to the testing and isolation requirements described above. For CHeCS-accredited herds, animals moving off the owner's holding for preparation for sale will lose accredited status if the CHeCS biosecurity rules are not adhered to on the premises where preparation is taking place.