FIV/FeLV testing

FLOW CHARTS

The following FIV and FeLV test result flow charts should be used as guidance for the management of cats in CP care and interpretation of test results.

There may be situations not covered, or requiring a different procedure, in which case, the CP representative or vet should contact the Veterinary Department at the NCC.

In general, confirmation of positive screening test results in CP cats

FIV confirmation in apparently healthy cats:
- Kittens and adults – PCR test at Langford Veterinary Diagnostics, Bristol, using an EDTA sample – CP submission forms for discounted PCR can be found at www.cats.org.uk/cat-care (click on Information For Vets)

FeLV confirmation in apparently healthy cats
- We would not recommend PCR testing, but prefer that heparin AND EDTA samples are sent to Veterinary Diagnostic Services, Glasgow for virus isolation. Submission forms can be found on Glasgow’s Vet Diagnostic Services website.

Although many confirmatory laboratories like to do an ELISA test as well, CP does not recommend this, as an in-house screening test will have already been performed. CP can consent to this if the laboratory wishes to perform a repeat screening test free of charge for their own comparative purposes, but the charity does not see a need to pay for it.
1. FIV SCREENING TEST POSITIVE
   Adult cats older than six months

   - Healthy domestic cat
     - Confirm with PCR at Bristol
       - PCR Negative
         - Rehome as FIV negative
       - PCR Positive
         - Rehome as FIV Positive
   - Not healthy or true feral
     - Euthanasia (NB. Ensure to adhere to Stray policy)

**KEY**

<table>
<thead>
<tr>
<th>FIV = Feline Immunodeficiency Virus</th>
<th>Bristol = specific, specialist external laboratory – Langford Diagnostic Services – see <a href="http://www.cats.org.uk/cat-care">www.cats.org.uk/cat-care</a> and click on Information For Vets for a submission form at reduced cost</th>
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<tbody>
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<td>PCR = polymerase chain reaction test</td>
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**THIS FLOW CHART IS FOR GUIDANCE ONLY**
2. FIV SCREENING TEST NEGATIVE
Adult cats older than six months

Healthy

Sick and still suspicious of FIV

Domestic

Feral

Rehome as FIV negative

PCR test confirmation (e.g., Langford Diagnostic Services)

PCR test Negative

Look for and treat other causes of illness

PCR test Positive

Euthanasia (NB. Ensure to adhere to Stray policy)

Euthanasia if not fit to release

KEY

FIV = Feline Immunodeficiency Virus

Langford Diagnostic Services = specific, specialist external laboratory

PCR = polymerase chain reaction test

THIS FLOW CHART IS FOR GUIDANCE ONLY
3. FIV SCREENING TEST POSITIVE
Kittens aged eight weeks old – six months old
It is estimated that up to about a third of a litter of kittens from an FIV positive queen will be infected.

Healthy (usually) and not feral or feral younger than 12 weeks old that can be socialised

Separate from mother and confirm with PCR at Langford Diagnostic Services to check whether true positive or just carrying the mother’s antibodies.

PCR test Negative

PCR test Positive

Home as FIV positive

Feral older than 12 weeks old

Euthanasia (NB. Ensure to adhere to Stray policy)

If healthy, rehome as FIV negative, advising that the kitten was (suspected if not known) born to an FIV positive mother. Antibodies against this virus were found on a screening test, but a test for DNA in the blood stream was negative. These antibodies were likely from the mother passed over in the milk. If desired, new owners may wish to discuss performing a further test at six to seven months old with their vet

Give Handout 1

KEY

FIV = Feline Immunodeficiency Virus

Langford Diagnostic Services = specific, specialist external laboratory

PCR = polymerase chain reaction test

THIS FLOW CHART IS FOR GUIDANCE ONLY
4. FIV SCREENING TEST NEGATIVE
Kittens aged eight weeks old – six months old
It is estimated that over two thirds of a litter of kittens from an FIV positive queen will be negative

If mother and any other in-contacts were FIV negative or unknown

Home as FIV negative

If mother or in-contact was FIV positive

Home as FIV negative but advise that mother or in-contact was positive (if known) and recommend speak to vet. *Give Handout 2*

KEY

FIV = Feline Immunodeficiency Virus

THIS FLOW CHART IS FOR GUIDANCE ONLY
5. FeLV SCREENING TEST
POSITIVE (Adult or kitten)

Healthy and domestic

Sick with FeLV or healthy feral

Confirm with VI (Glasgow Veterinary Diagnostic Services)

VI positive

Sick with FeLV or healthy feral

Euthanasia (NB. Ensure to adhere to Stray policy)

Negative

Home as FeLV negative

A cat of any age who’s exposure history is unknown OR any cat that is younger than six months old - euthanasia (NB. Ensure to adhere to Stray policy)

Older than six months old AND if certain the 1st exposure to FeLV was only very recent

Contact CP veterinary department

KEY

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<tr>
<th>FeLV = Feline Leukaemia Virus</th>
<th>VI = virus isolation test</th>
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<td>Glasgow Veterinary Diagnostic Services = specific, specialist external laboratory</td>
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THIS FLOW CHART IS FOR GUIDANCE ONLY
6. FeLV SCREENING TEST NEGATIVE (Adult or kitten)

Healthy

Unhealthy and still suspicious

VI (Glasgow Veterinary Diagnostic Services)

VI negative

VI positive

Euthanasia (NB Ensure to adhere to Stray policy)

Home as FeLV negative

Separate from FeLV positive and other cats and keep in isolation

Look for and treat other cause of illness

Wait one month after exposure to FeLV

VI (Glasgow)

Positive

Euthanasia (NB. Ensure to adhere to Stray policy)

Negative

Home as negative but explain had been in contact with an FeLV positive cat.

KEY

VI = virus isolation test
FeLV = Feline Leukaemia Virus
Glasgow Veterinary Diagnostic Services = specific external laboratory

THIS FLOW CHART IS FOR GUIDANCE ONLY
FIV/FELV confirmatory blood tests

When to confirm screen test FIV/FeLV results

Unless the cat is showing characteristic signs of FeLV or FIV, or is a feral cat over 12 weeks old, all positive screening test results for FIV/FeLV should be confirmed at a reliable external laboratory. We currently recommend using University of Glasgow Veterinary Diagnostic Services for FeLV in all cats (VI test) and Bristol laboratory for FIV in all cats (PCR test).

If a screening test is negative, but the vet is suspicious of the result as the cat is showing signs of FIV/FeLV, confirmation should be sought via a reliable external test.

Recommended FIV/FeLV confirmatory blood tests at external laboratories

- Polymerase Chain Reaction (PCR) test – the PCR test looks for genetic material and is especially useful in kittens born of FIV positive queens
- Virus isolation (VI) – A VI test grows the FeLV virus, to identify whether it is present

Details of confirmatory laboratories

Submission forms and further details can be found on the following websites:

University of Glasgow http://www.gla.ac.uk/schools/vet/cad
University of Bristol http://www.langfordvets.co.uk/diagnostic_laboratories.htm
but a discounted test for CP cats can be submitted on the form found at www.cats.org.uk/cat-care and by clicking on Information For Vets

FIV testing

Adult cats

Screening test kits detect FIV antibodies which develop four to six weeks after infection. For adult cats which test positive for FIV on a screening test, the guidance is to then send the blood to the University of Bristol’s Langford Veterinary Diagnostics for confirmation by PCR.

An IFA test also detects FIV antibodies. If an IFA test confirms that the cat is FIV positive, no further tests are required and the cat can be rehomed as positive if healthy and suited to an available indoor home. However if the IFA test is negative following a positive screening test, then a further test (Western Blot) may be performed and this may be inconclusive. So IFA is not recommended for CP cats. If it has been undertaken in CP cats and has yielded inconclusive results, then a PCR test at Bristol’s Langford Veterinary Diagnostics is recommended.

Kittens

Kittens born to an FIV-positive mother can have maternal FIV antibodies until they are five to six months old, meaning if they were tested younger than six months of age using a screening test, it is likely that they would show positive results. Because the PCR test looks for actual genetic material, it is very useful in the diagnosis of infection in young kittens which may have maternally-derived antibodies, but which do not actually have FIV. For kittens that test positive on a screening test, a blood sample should be sent to the University of Bristol Laboratory for confirmation with a PCR test.
**FeLV testing**

Screening test kits detect free FeLV antigen found in the cat’s plasma. If a healthy cat or kitten tests positive for FeLV on a screening test, the guidance is to then send the blood to the University of Glasgow Laboratory for confirmation by VI.

A PCR test for FeLV is available at some laboratories. PCR results must be interpreted with care because the PCR test detects FeLV genetic material and this may still be present in cats which have been transiently (briefly) infected with FeLV and then go on to recover, and so it can be difficult to interpret positive FeLV PCR results. However, cats with high FeLV PCR CT values are likely to have cleared infection and not be persistently viraenic, and so can be regarded as FeLV negative.

Unlike tests for FIV, FeLV tests are not affected by maternally-derived antibodies, so they can be used for cats of any age.

More information on FIV/FeLV, including blood testing recommendations can be found on The Cat Group’s website: [www.thecatgroup.org.uk](http://www.thecatgroup.org.uk)
FIV and FeLV handouts and information sheets
Handout 1 - For owners taking on a kitten initially testing FIV antibody positive and subsequently testing FIV DNA negative on a confirmatory test.

Testing for FIV in kittens can be complicated. Veterinary practice screening test kits detect antibodies to FIV, so a positive result means that antibodies to FIV have been detected. In adult cats this positive antibody result means that the cat is infected with the FIV virus. However, in kittens this may only mean that they have some of their infected mother’s antibodies from the milk, but not the virus itself. In fact, only around one third of kittens born of FIV positive mothers are FIV positive themselves. Therefore a Cats Protection kitten testing positive (for antibodies) on a screening test kit has a special (PCR) test done at a reliable external laboratory to identify whether there is any actual virus present or not.

This kitten tested positive on a screening test, but negative on the PCR test. This indicates that the kitten did have antibodies, likely from its (FIV positive) mother passed over in the milk, but fortunately is most likely to be FIV negative itself. If you wish, a further test can be performed at six to seven months of age. Speak with your own vet if you wish to explore this option.

Should you or your vet require further information on FIV diagnostic testing, please contact the NCC Veterinary Department on 01825 741 991 and see the Cats Protection Veterinary Guide ‘FIV and FeLV.”
**Handout 2 - For owners taking on an FIV negative kitten from an FIV positive mother**

**Feline Immunodeficiency Virus (FIV) positive mother, but kitten tested negative**

This kitten’s mother was FIV positive. Fortunately only one third of kittens born to FIV positive queens are FIV positive themselves. This kitten has tested negative on a veterinary practice screening test.

For more information please refer to Cats Protection’s Veterinary Guide ‘FIV and FeLV.’