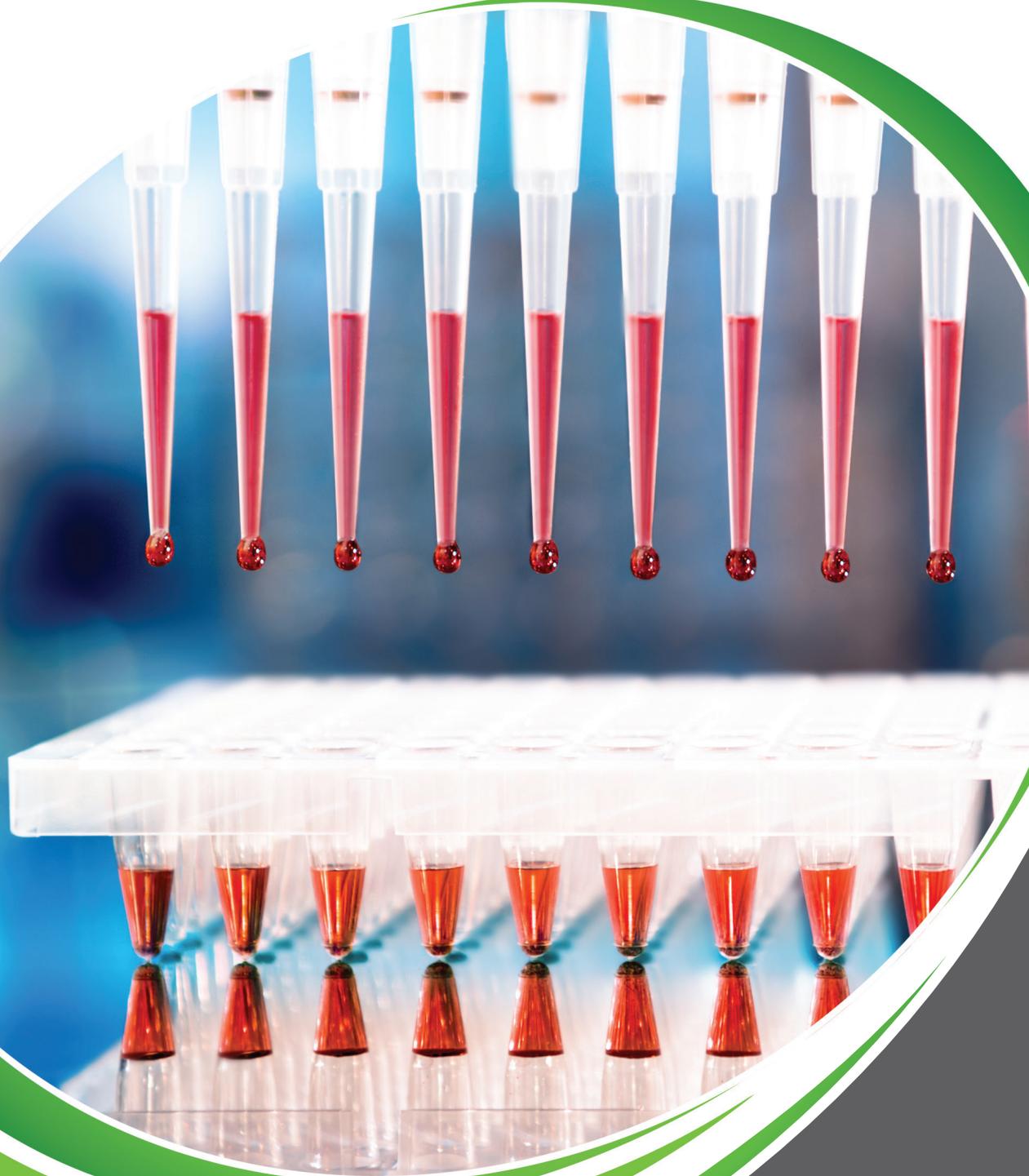


PCR Sample Collection Advice **Small Animal**



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Feline Respiratory PCR Panel

PCR is the gold standard of testing for infectious feline Upper Respiratory Tract Disease (URTD).

Population studies have been performed in several countries with similar results, with PCR prevalence of organisms in cats with infectious URTD approximately:

Mycoplasma felis	45%
Feline calicivirus	45%
Feline herpesvirus	25%
Chlamydia felis	15%
Mixed infections	40%.

Sampling should ideally be performed early in the disease course. Increased chronicity, previous treatment and prior vaccination can reduce the detection of organisms by reducing their expression on epithelial cells.

Latent infection of Herpesvirus cannot be detected by PCR as the virus is sequestered in nerve ganglions and is not expressed on the epithelium.

The best samples for Feline Respiratory PCR contain large numbers of epithelial cells with minimal other material. Swabs with large amounts of ocular or nasal discharge may not be diagnostic.

Use sterile dry swabs (plastic shaft only) to collect samples. The presence of ointment or other medications in the eye can prevent adequate epithelial collection and interfere with the PCR test and should be avoided. Thoroughly swab the conjunctiva, collecting from both eyes if possible. If nasal discharge is present, roll a sterile dry swab firmly along the nasal planum. A final swab should be used to collect a deep pharyngeal sample.

If only a single site can be collected, a deep pharyngeal swab is preferred, however collecting from all three sites increases detection of organisms.

The swabs should be placed in a single sterile container. The swab stems can be shortened using sterile scissors to fit the swabs into the tube. Do not place swabs in bacterial culture transport media. Label the container and keep the samples cool prior to sending to the laboratory for testing.

If culture is also required, please submit a separate swab in transport media.

Feline Haemotropic Mycoplasma PCR

Haemotropic Mycoplasma cause significant disease in cats, and have been estimated to be present in 30% of cats with regenerative anaemia.

Even in acute disease, haemotropic Mycoplasma are only identifiable by microscopy in freshly made smears of peripheral blood in 50% of cases. With exposure of blood samples to EDTA or following treatment, the percentage of blood film detection will drop dramatically. PCR provides a more sensitive method of detection of haemotropic Mycoplasma, with the additional advantage of differentiating the organisms involved.

PCR testing also allows detection of carrier cats, which is particularly important for blood donors.

The sample required for PCR testing is a blood sample collected into an EDTA blood tube.

If a FBC is also required, a separate EDTA sample and blood smears need to be submitted.

Canine Respiratory PCR Panel

PCR is a highly sensitive and specific method of testing for infectious canine Upper Respiratory Tract Disease (URTD).

Sampling should ideally be performed early in the disease course. Increased chronicity, previous treatment and prior vaccination can reduce the expression of organisms on epithelial cells.

The best samples for Canine Respiratory PCR contain large numbers of epithelial cells with minimal other material. Swabs with large amounts of ocular or nasal discharge may not be diagnostic.

Sampling sites should be selected based on the clinical presentation, and may include nasal swabs, deep pharyngeal swabs, ocular swabs and swabs or fluid from a trans-tracheal wash (TTW) or bronchoalveolar lavage (BAL).

The swabs (plastic shaft only) should be placed in a single sterile container. The swab stems can be shortened using sterile scissors to fit the swabs into the tube. Do not place swabs in bacterial culture transport media. Label the container and keep the samples cool prior to sending to the laboratory for testing.

If culture is also required, please submit a separate swab in transport media. If cytology is also required for TTW or BAL samples, please submit separate EDTA fluid and slides.

Leptospira PCR (urine/blood)

PCR detection of leptospirosis allows detection of infection earlier than serology. Dogs take at least a week after exposure to become serologically positive. However, they will be PCR positive in blood within the first week.

The preferred sample within the first week of infection is blood. After this time, the blood will commonly become negative, and urine is the preferred sample. However, as the time of infection is rarely known, both blood and urine should be submitted in all suspected cases. When both samples are submitted at the same time, both will be tested at no additional cost. Samples for PCR should be collected before starting antibiotic therapy.

The samples required for PCR testing are urine in a sterile urine container and a blood sample collected into an EDTA blood tube.

If haematology, biochemistry and urinalysis are also required for the case, separate blood and urine samples need to be submitted.

Feline and Canine Faecal Multiplex PCR Panels

PCR testing of faecal samples allows evaluation for a range of infectious organisms in a single test – bacterial, protozoal and viral. For most infectious organisms included in the panel, PCR is the most sensitive and specific assay method. The PCR panel does not test for faecal parasites, and faecal parasite evaluation (faecal flotation) may be indicated in some cases.

The sample required for PCR testing is a faecal sample and a rectal swab (plastic shaft only) collected into a sterile container.

If other faecal tests are additionally required (including faecal float or culture), a separate faecal sample in a sterile container will need to be submitted.