

NEW ZEALAND CAT FANCY

GUIDELINES

FELINE INFECTION PERITONITIS

QUESTIONS & ANSWERS

- Q** Are all my cats going to get FIP now one has died from it?
- A** No.
- Q** Do I need to desex all my breeding cats right away?
- A** No
- Q** If I have a cat die with FIP, can I carry on breeding?
- A** Yes
- Q** What if a pet owner reports a FIP death - is that the same as having one die who was in my cattery?
- A** Yes
- Q** After a FIP death in my cattery can I sell related cats as breeders?
- A** Yes, although would generally recommend not from the same parents.
- Q** How long after the death of one of my cats from FIP should I wait before introducing another cat to the household or cattery?
- A** Three months - to be very cautious.

INFORMATION & MANAGEMENT

These guidelines are based on current understanding of FIP and may be updated in the future.

INTRODUCTION

Feline infectious peritonitis (FIP) is caused due to a mutation within an individual cat that has been infected with feline enteric coronavirus (FCoV).

Approximately 20 - 60% of domestic cats will be positive on a blood test for feline coronavirus. In some cases 90% of cats in animal shelters or in pedigree catteries will be positive for feline coronavirus. Despite the fact that so many cats have FCoV, less than 5% of them develop the viral mutation that leads to FIP.

Development of FIP is an individual event.

FIP is not contagious in the way we think of most infectious diseases. FIP is due to a complex interplay between:

- the cat and its genetics,
- the environment including stressors, and
- the virus itself.

FIP can affect cats of any age. However it most commonly affects cats between 4 - 18 months of age, and then cats about 9 – 10 years of age.

Infection with feline coronavirus usually causes mild gastrointestinal disease (diarrhoea and vomiting) and in many cases no symptoms will be recognised. Some cats will have a mutation of the coronavirus and develop FIP.

TYPES OF FIP

There are two forms of FIP – the wet (effusive) form and the dry (non-effusive) form.

EFFUSIVE FIP

The first signs are often noted 1-2 months after a stressful episode (kitten moving to a new home, surgery) or exposure to infection with FCoV. The main identifier of effusive FIP is the accumulation of fluid within the abdomen or chest. Symptoms can include lack of appetite, loss of weight, fevers, jaundice, and diarrhoea, and eventually breathing difficulties.

In spite of supportive treatment, most patients with effusive FIP live only for a few weeks.

NON-EFFUSIVE FIP

Clinical signs are less obvious and may include progressive weight loss, lack of appetite, chronic unresponsive fever, enlarged lymph nodes. Non-effusive FIP is considered to be a more chronic, smouldering form of the disease. Eye lesions are common in patients with non-effusive FIP. Neurological signs occur in about up to a third of cats with non-effusive FIP. Clinical signs include depression, lack of coordination, tremors, seizures, and muscle weakness.

Cats with non-effusive FIP have a progressive illness that is fatal weeks to months after diagnosis.

DIAGNOSIS, TESTING, AND TREATMENT

FIP is difficult to diagnose. No single test exists; diagnosis is made by taking the sum of numerous findings. A positive FCoV antibody test does not diagnose FIP and a negative FCoV antibody test does not rule FIP out.

Although on-going research offers hope for the future, there is currently **no effective treatment for FIP and all cases are fatal.**

CONTROL IN BREEDING CATTERY

HYGIENE

New information suggests that the virus is more stable in the environment than previously believed. While it is easy to kill FCoV and FIP viruses on a surface with common disinfectants (1:32 dilution bleach) and detergents, if dried virus is left in less accessible areas, it may survive for several months.

Faecal-oral transmission is important. Try to separate litter trays for queen from those for kittens, e.g., queens litter tray on bench where kittens can't jump to, kittens litter tray inside pen with bars that kittens can fit through but not the queen. Clean litter trays of faeces at least daily and a complete clean at least weekly. Have more than one litterbox for every two cats. Keep litter trays well away from food and water sources.

GROUPING

Keep a small population. One of the risk factors for development of FIP is housing six or more cats together. Crowding is a stress factor and needs to be avoided.

Maintaining stable groups and avoiding disruption of introductions is a valuable goal.

Avoid having the majority of the cattery under 3 years old and instead aim for a stable population over 3 years old, adding younger cats only when necessary.

Do not mix litters of kittens together.

BREEDING

It is recommended that breeders should take action to minimise genetic susceptibility to FIP in kittens of their breeding by:

- not repeating a mating that has produced even one offspring that developed confirmed FIP,
- desexing an individual cat that has produced offspring in more than one litter that have developed FIP, and
- carrying out pedigree analysis and looking for common ancestors where several pet kittens (in different households) have developed FIP.

Cats sold for breeding should have all information disclosed about closely related FIP occurrences.

EARLY WEANING THEORY

The purpose of early weaning is to delay or prevent the exposure to feline coronavirus but to be entirely successful this requires quite involved isolation and hygiene. Studies have shown that of kittens raised underfoot (allowed to mix with all other cats) 52% test positive for feline coronavirus at 12 – 16 weeks, of kittens isolated with the queen 30% test positive at 12 – 16 weeks, and of kittens isolated from all adults in the household including the queen, none test positive at 16 weeks.

This suggests that transmission of coronaviruses to kittens often takes place after birth by individuals other than the queen. Because coronaviruses can be transmitted indirectly, strict attention to hygiene is also essential to achieve success with this method

Early weaning can reduce the chances of developing FIP by preventing infection with coronavirus while in the breeder's care, but it does not guarantee a cat will never develop FIP if it goes on to live in a multi-cat household or in a situation where it will not be kept entirely indoors (i.e., isolated from other cats).

Early weaning requires the separation of kittens from mother as soon as they are established on solid foods, at 4-6 weeks but there is evidence that early weaning (before 8 weeks) may result in increased likelihood of subsequent behavioural problems.

GENERAL

Minimise other stressors.

Maintain good nutrition.

Maintain good parasite control.

WHEN IS IT SAFE TO GET ANOTHER CAT AFTER ONE DIES OF FIP?

Since this is not a contagious disease, one can argue that you do not need to wait before getting another cat. If you want to see that there is no remaining coronavirus around the house leftover from the deceased cat, a three-month period has been advocated.

FURTHER READING

Dr Neils Pederson's site has plenty of information, including cattery management:

<http://www.sockfip.org/>

The Winn Feline Foundation has an article in its Cat Health Library which has some good information and references:

<http://www.winnfelinefoundation.org/education/cat-health-library>

Dr Diane Addie's approach aims for coronavirus free catteries and may be of interest:

<http://www.catvirus.com/>