

FELINE INFECTIOUS PERITONITIS

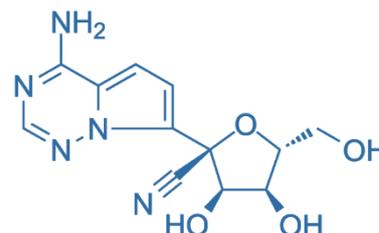
THE LOW DOWN ON REMDESIVIR

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REMDESIVIR & ITS ROLE IN TREATMENT

Remdesivir is proving to be highly effective in treating FIP in clinical trials.

- This is the **pro-drug of the nucleoside analogue GS-441524**, the only difference is the presence of an **extra phosphate group on Remdesivir**.



Originally, the maintenance dose of Remdesivir for treating FIP was set at **5 to 6 mg/kg**, but **higher dose rates are potentially needed**.

- Dose rates vary depending on the type of FIP to keep them into **remission**.

TYPE OF FIP	DOSE
WET FORM	6 mg/kg
DRY FORM	≥ 8 mg/kg
NEUROLOGIC & OPTHALMIC FORM	10 to 15 mg/kg

Cost of treatment is the main factor why owners won't treat their cats.

- Up to \$15 000 for a full course, which is why experts are exploring an **alternative anti-viral like Mefloquine**.
- Mefloquine which is an anti-malarial drug has shown some **efficacy against coronavirus**.

CONFIRMATORY TESTS TO DIAGNOSE FIP

I IMMUNOCYTOCHEMISTRY / IMMUNOHISTOCHEMISTRY

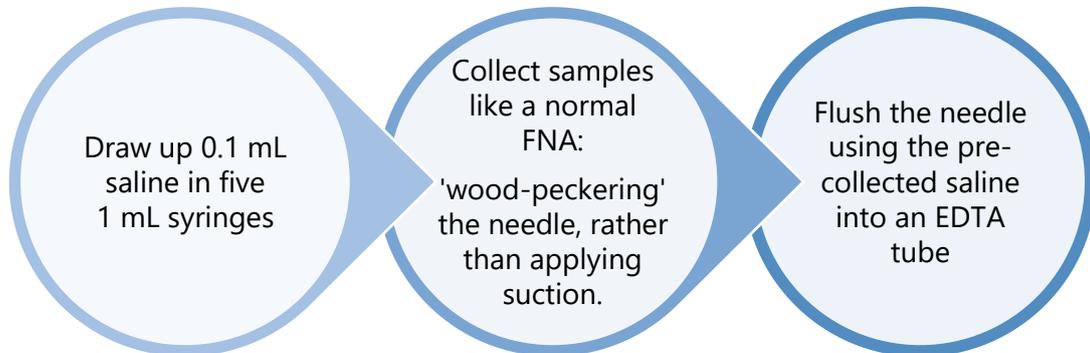
These tests are the **gold standard** for diagnosing FIP.

IMMUNOCYTOCHEMISTRY	IMMUNOHISTOCHEMISTRY
Use of fluorescing dyes on effusions for wet FIP	Use of fluorescing stain for biopsy tissues for dry FIP
Check for cells, particularly monocytes, that are glowing under the UV microscope	Aspirate cells from a big mesenteric lymph node or an abdominal mass and do a direct smear*



NOTE: There are some **issues with cell preservation** using this technique for immunohistochemistry.

BEST WAY TO COLLECT BIOPSY SAMPLES



You'll get around **0.5 to 1 ml of fluid** in that EDTA tube which is enough to test on.

2 PCR

Different from the old faecal PCR tests.

- Feline coronavirus (gut form) differs from FIP virus through **FIP corona's ability to replicate within macrophages** and eventually disseminated around the body.



"What we're doing is catching coronavirus in a place it can't get to unless it's mutated to a point where it can replicate in macrophages and disseminate around the body. It's the same Corona virus that was in the gut and is in the gut of plenty of cats."

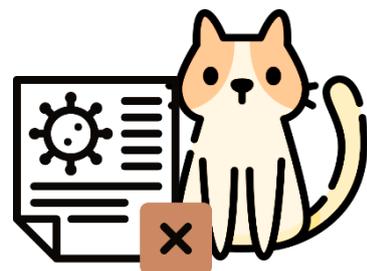
Both tests can be done at the veterinary pathology and diagnostic laboratory at **Sydney University**. You can also request it through IDEXX Diagnostics.



NOTE: Plan ahead on where you will submit the samples directly since **time is of the essence** with these samples in order to **prevent cell degradation**.

Sensitivity of the gold standard is around **70%** so be still wary of the possibility of **false negatives**.

- Because of the relatively high risk of false negatives with either test, it's **best to do both** diagnostic tests.

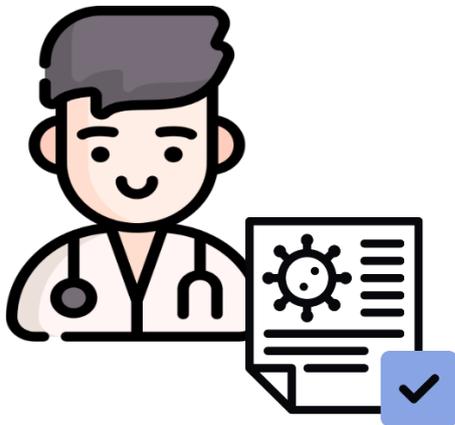


DEALING WITH WET FIP

What if the patient is highly likely to have effusive FIP based on clinical signs? It's **pyrexia, hyperglobulinemic, hyperbilirubinemic**, and it got a **belly full of fluid** that is high in protein.

Can I order and start ahead with Remdesivir?

- Samples are relatively easy to collect, so ideally try to **confirm the diagnosis first before committing the owner to an expensive treatment plan** for FIP.



DEALING WITH DRY FIP

Unlike with wet FIP, obtaining samples and biopsies are **more invasive and time-consuming**, which prolongs the duration before the dry FIP patient can start on treatment.

- Plenty of vets are opting for a **treatment trial using Remdesivir** to see whether patients get better to confirm if its FIP.
- A vial of Remdesivir that can last for a trial cost around \$250, which is **cheaper** than an MRI.



PRO TIP: For all forms of FIP, watch out for the following:



WAXING &
WANING PYREXIA



ALBUMIN / GLOBULIN
RATIO OF 0.4 - 0.5

Remember to **rule out** the possibility of **toxoplasmosis or cryptococcosis** in your patient!

TREATMENT PROTOCOL USING REMDESIVIR

Initially start with **10 mg/kg** for the first 4 doses (day 0 to 3), once a day, slow IV

Expect to see some improvement after giving these



Then continue with a dose of **6 mg/kg SC** for 12 weeks



NOTE: Neurologic and ophthalmic FIP is more stubborn to treat. Improvements may or may not be observed for 2 weeks after the start of treatment.

- The dose is maintained at **10 mg/kg** through the duration of the protocol.
- If there are **no signs of improvement**, increase the dose up to **15 mg/kg** and reassess after a week.

TREATMENT PROTOCOL USING REMDESIVIR (CONT.)

Pyrexia and inappetence resolve quickly within the first few days of treatment with Remdesivir.

- In wet FIP, **ascites or pleural effusions resolve within 1 to 3 weeks**, following a drop in Albumin levels.
- **Globulin levels** usually take a bit longer, **around 6 to 8 weeks**, to show significant improvements.



NOTE: Aim to have normal albumin: globulin ratio, and normal haematology values for **at least 2 weeks before discontinuing the drug**. Most patients have hit normal levels by 12 weeks and the **goal is at least 80% remission and cure rate**.

