

# Webinar Report

## FVE/FECAVA on challenges and opportunities of FIP treatment

July 4th, 2023

12h00-13h30 CEST

The Federation of Veterinarians of Europe (FVE) and the Federation of European Companion Animal Veterinary Associations (FECAVA) were delighted to host a joint webinar on the challenges and opportunities of Feline Infectious Peritonitis (FIP) treatment, which gathered scientists, practitioners, competent authorities, the pharmaceutical industry and policymakers alike. FVE Past Vice-President Thierry Chambon welcomed the 150 participants and shared his very personal experience of the dilemma and burden of FIP.

Feline Infectious Peritonitis (FIP) is caused by a mutation of the commonly seen feline coronavirus (FCoV). This debilitating disease has historically presented a grim prognosis for affected cats, often necessitating euthanasia within a matter of days. However, recent groundbreaking research allowed the development of new treatment options which allow successful treatment of this once-lethal condition. However, most countries still have no legal option for the treatment of FIP. This poses a massive dilemma for both veterinarians trying to fulfil their professional responsibility and owners, in letting an animal suffer knowing there is an effective treatment available, but out-of-reach. Today we are looking at an unprecedented dilemma with great complexity, including legal constraints.

FVE has gathered data from several EU and non-EU countries on FIP treatment availability together with FECAVA. Both organisations have proactively been advocating in a joint letter to the Heads of Medicines Agency (HMA) for the release of a small quantity of the nucleoside analogue Remdesivir (market name as Veklury), authorised by EMA for the treatment of COVID-19 to veterinarians.

GS-441524, or short GS, a remdesivir breakdown product is available legally in some countries, while in others it can be obtained via the black market. Studies have shown that GS was remarkably safe, very effective, and can be given orally. In the UK, where its extemporaneous production is authorised, the company BOVA prepares GS and makes it available legally. BOVA also exports GS to several countries, while most EU countries put national restrictions on the import of GS from BOVA. This lack of treatment in many countries has led to a flourishing black market for the drug, raising concerns about its purity of the composition and safety of it.

Therefore, additional actions are needed to control and treat FIP, given the extent of infections in certain areas such as Cyprus. Please find the full recording of the webinar [HERE](#).

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### Speakers

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Keynote speaker Professor Katrin Hartmann from Ludwig Maximilians University (LMU) in Munich (DE) recapped the current knowledge on the different antiviral treatments with a special emphasis on animal trials of the GS-441524. Prof. Hartmann took us from the time when no treatment was available and all cats died from FIP within days, to unsuccessful treatment that dropped out due to adverse events, to today's unprecedented opportunities with broad-spectrum antiviral drugs. She explained

the success of GS-441524 based on the improvement of clinical and laboratory parameters as well as the reduction of viral load in blood and effusion and shedding in feces.

Long-term follow-up over 12 months indicated a remarkable survival rate of 100% and all treated cats were in complete remission. Currently, she is performing a new multi-centre study on 770 cats (400 cats in Munich and 370 cats in Zurich) who will be treated with GS 441524 with the aim to evaluate prognostic parameters. This FIP study will benefit owners with few rechecks at university institutions and reduced costs. The contact details are in her presentation [HERE](#).

Questions from the floor were on the frequency of cats having blood tests during FIP treatment, and potential biomarkers which would be able to reliably indicate an end of therapy.

	1 <sup>st</sup> follow-up (6 months)	2 <sup>nd</sup> follow-up (9 months)	3 <sup>rd</sup> follow-up (12 months)
participating cats	18/18	15/18	14/18
missing owner compliance	0/18	2/18	3/18
death	0/18	1/18 (road traffic accident)	1/18
cats in complete remission	18/18	18/18	18/18
lymphadenomegaly	9/18	5/15	6/14
neurological signs (FHS)	0/18	1/15	2/14

Emma Jones, BOVA Specials, detailed their extemporaneous preparations for FIP treatment, with follows Good Manufacturing Practice (GMP) and many quality controls. Bova Specials UK Limited manufactures veterinary medicine under the Manufacturer ‘Specials’ Authorisation, issued by the UK Veterinary Medicines Directorate, an Executive Agency of the United Kingdom government’s Department for Environment, Food and Rural Affairs. Though additional national provisions may apply, BOVA can export their extemporaneous preparation under Art. 112,1, c of the [Regulation \(EU\) 2019/6 on veterinary medicinal products](#) to Sweden, Czech Republic, Norway, Finland and Cyprus whereas more countries have expressed interest to import the product. BOVA cooperates with several Universities and activity support research on GS. Her presentation is [HERE](#).

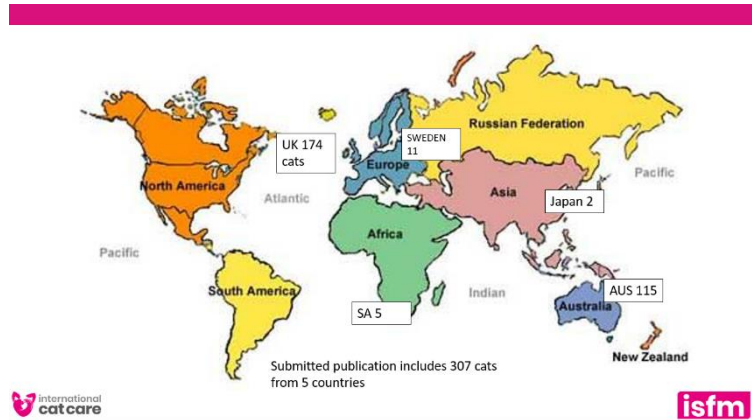


## Black market price comparison

Daniëlle Gunn-Moore, Emi Barker, Samantha Taylor, Séverine Tasker, Stephanie Sorrell (2022)  
An update on treatment of FIP in the UK. Vet Times 51(49)p 8-11

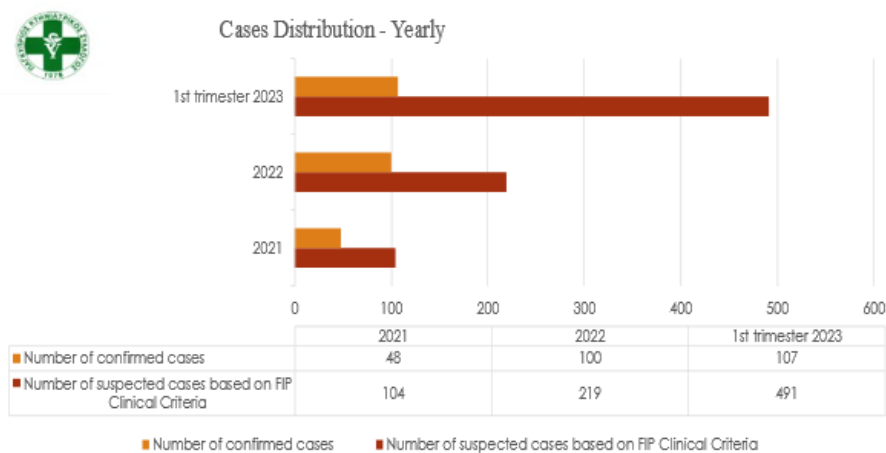
One of the obstacles for owners is the price of GS. Mrs. Jones showed a comparison of the BOVA prices with some of the GS products offered on the black market, some of which were cheaper, some more expensive. The difference, she explained, is that BOVA has a strict quality assurance system, so purchasers can be confident in the product they buy.

Dr. Sam Taylor, spokesperson of the International Society of Feline Medicine, expanded on the international perspective of FIP and shared the success stories of Arthur, Millie and many other cats that survived thanks to the treatment options that became available after 2020 in Australia and the UK. She highlighted how much the knowledge is now helping so many cats due to the mutual efforts from all actors. A joint study aimed to evaluate the use of legally sourced remdesivir and GS-441524 with descriptive data on efficacy and side effects. The publication gathered data from 307 cats from 5 countries and may help facilitate import in various countries without a legal treatment option. Her presentation is [HERE](#)



In the Question-and-Answer session, Demetris Epaminondas from the Cyprus Veterinary Association explained that an outbreak has been happening since late December 2022 or early January 2023 in Cyprus, which has started from the capital City of Nicosia and spread from urban to most remote areas. His association tried to map the characteristics of this outbreak via a questionnaire. Getting back responses from 23 small animal clinics (out of 160) they received feedback on suspected cases (based on clinical criteria) and confirmed cases (based on laboratory testing PCR etc). Based on this [report](#), the FIP incidence seemed to have increased 20 times more than the cases in 2022.

He asked if any other European country has seen a similar increase in FIP cases. Multiple participants from the floor shared their perception of a sharp local increase of FIP cases, such as in Ukraine and Switzerland.



Secondly, he asked if anybody has experience or seen studies on the use of other human approved medications for Covid-19 such as molnupiravir. Sam Taylor responded that the Australian colleagues have some experience with it, but nobody else and nothing is published on it. Katrin Hartmann agreed that dosage and efficacy are not established until now and further research is needed. A comment from the floor indicated that molnupiravir and metabolite should ONLY be used as a last measure if resistances are seen.

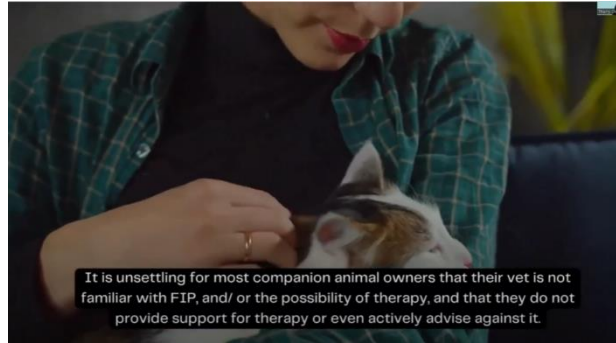
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## Panel discussion

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The panel discussion was moderated by Thierry Chambon, FVE Past Vice-President, and started with two statements from the owner's interest groups.

The first statement related to substandard diagnostic assessment and veterinarians not being familiar with the illness and/or the possibility of therapy. They felt they did not receive enough veterinary support or some veterinarians even actively advised against therapy. The owner's interest group pleaded for the approval of GS as an official therapy option. Until this happens, they wish for the support of vets in diagnosis and monitoring and rapid action for presumptive FIP cases and that both the concerns of the owners in this emotionally extremely stressful situation as well as the recommendations of the interest groups regarding diagnosis and treatment are genuinely considered. Their full statement is [HERE](#).



Ann Criel, FECAVA honorary secretary, highlighted the complexity of diagnosis, which requires invasive, multiple and costly tests. Though admittedly, the first encounters with self-treaters were overwhelming due to incomplete knowledge of the composition of the illegal drugs, many veterinarians are now familiar with the situation and support owners to the best of their ability. Yet, the practitioner is stuck in what they legally are allowed to do and what they would like to do for these cats. She firmly advocated for a change of the legal restrictions.

The second statement from FIP Warriors Europe expanded on their commitment to keep access to safe and affordable medicines for this terrible disease and the protocols to treat it appropriately. Their belief is prevention is better and cheaper than cure. They also support the development of a vaccine by ZenByCat, an American charity that collects funds for research into a vaccine. They would wish to disband and be made obsolete once that a vaccine is available. Until this happens, FIP Warriors will still be needed for many years to come. Their full statement is [HERE](#). They shared their [guidance document](#), too.

Marieke Knies, Utrecht University, echoed Ann Criel's opinion that the majority of veterinarians are aware of FIP as well as its treatment options. In their clinic, they even saw FIP being over-diagnosed, with similar symptoms due to other causes. Self-treatment of cats that actually did not have FIP let them worry about resistance development. They recommend evidence-based protocols and legal treatment options over empiric protocols and illegal drugs. Both Marieke Knies and Katrin Hartmann agreed that, though vaccines research is ongoing, no successful candidate was yet presented, and a vaccine will probably not be available in the short term future, although the COVID-19 pandemic has paved the way for a more rapid vaccine development.

The third statement came from Prof. Niels Pedersen, University of Davis, California, a pioneer in FIP research. He said: *'I think that our profession has not distinguished itself on this issue. The question is not "how we react to the reality of what has occurred" but "why have these major drug companies not lived up to their commitment to "one medicine." There is no question - our oaths as veterinarians allow us to assist cat owners in proper diagnosis and treatment of FIP, regardless of how the effective drugs*

*are obtained. Yes, there are legal constraints at the present time but not ethical dilemmas. Your webinar should be about forcing big human pharmaceutical companies like Gilead, Merck and Pfizer to honour their commitment to both man and animals.'*

Paule CARNAT-GAUTIER, Head of the deputy head of the French national agency for veterinary medicinal products (ANSES) agreed entirely with Professor Pedersen and recognised the need of a legal way to treat cats. The cascade to use human medicinal products for animals is such a possibility. However, in many countries remdesivir is restricted to hospital pharmacies and they do not want to make a part of it available to treat FIP cats. Luckily, in the recent opinion of the European Medicines Agency on the restrictions of antimicrobials in the cascade, the need to keep remdesivir available to treat FIP cats was recognised. So remdesivir is legally allowed to be used to treat FIP cats. The problem with GS from the black market is the incomplete information of the production standards and quality controls. Therefore, they engage on all levels to enable access to legal drugs, so that they do not need to go to the black market. Also in France, a clinical study will start with the veterinary schools. 'We hope that the pharmaceutical industry will develop a product for cats.' she said.

Thierry Chambon asked if French veterinarians are allowed to import the BOVA product. Paule CARNAT-GAUTIER explained that in France, the import of products is very restricted and does not allow the import of ex-temporary prepared products. Emma Jones echoed that unfortunately several countries put up these additional national constraints. She underlined that BOVA follows strict UK legislation in respect to compounding and offered solutions such as audits of the production facility.

Remaining questions from the floor were on the availability to other European countries, and Emma Jones will try to assist for this, you can contact her via [emma@bova.co.uk](mailto:emma@bova.co.uk).

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### Conclusions

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This webinar aimed to raise awareness, to hear about the latest research results and new opportunities, to explore solutions for the legal constraints and to create a space for discussion with an open mind.

Today, more than ever ago, reconsideration and re-evaluation of FIP treatment options is on top of everyone's agenda. Veterinarians and other researchers have experienced and studied FIP for over 40 years now, but more collaboration is needed, e.g. on pedigree/disease information and DNA samples.

Firstly, it is **crucial to monitor FIP prevalence** at both national and European levels, particularly in countries experiencing an increase in cases. By closely tracking the spread of the disease, we can better understand its impact and implement timely interventions.

Secondly, FVE and FECAVA strongly advocate for increased research efforts to **develop effective vaccines** against FIP.

Lastly, we urge policymakers to **provide veterinarians with a legal option to treat FIP-affected cats** e.g., allowing them to use either Remdesivir or GS-441524. It is essential that owners no longer feel compelled to turn to the illegal market in their desperate search for life-saving treatments for their beloved pets.

By implementing these recommendations, we can make significant strides in combating FIP and providing hope to both veterinarians and owners facing the challenges of this devastating disease.