

INSTRUCTIONS FOR DILUTING FELINE INTERFERON OMEGA (VIRBAGEN OMEGA) FOR ORAL USE FOR FIP TREATMENT

Recombinant feline interferon omega (Virbagen Omega, Virbac, France) is available in many countries now. Once a vial is reconstituted, it will keep for up to 3 weeks at 4°C (i.e. fridge); or up to 6 months in a freezer. One vial should provide up to 100 days of oral treatment.

Dose for non-effusive feline infectious peritonitis (FIP) or post Mutian treatment: ^{Addie *et al*, 2020} 100,000 units per day *per os*, preferably in the morning on an empty stomach, but since the action of oral interferon is believed to be due to interaction with the oral cavity mucosa it may not matter too much if the cat has eaten.

Diluting Virbagen Omega

Virbagen Omega comes in vials of 10 million units (MU). Although it is manufactured as an injectable solution, it is also effective given orally. ^{Addie *et al*, 2020; Gil *et al*, 2013 & 2014} The vial of freeze-dried Virbagen Omega (VO) should be reconstituted with 1ml of diluent (provided by the manufacturer).

You will need 10 x 1ml insulin syringes, a clean plastic baggie big enough to hold them, an indelible marker pen, and a clean screw-top bottle containing 4.9mls of normal glucose saline or distilled water.

The following are the steps to obtain a solution of 100,000 units for oral administration:

1. Make up one vial of VO as directed (i.e. add the diluent to the freeze-dried interferon).
2. Using 10 x 1ml syringes, withdraw 0.1ml into each of ten 1ml syringes (you now have one million units of VO per syringe). (Realistically, one doesn't always get the full millilitre back out of the vial, so you may only obtain 9.)
3. Freeze 9 of the syringes in a baggie (they will last up to 6 months in the freezer: remember to put the date on the bag).
4. Put the tenth syringe content (0.1ml) of reconstituted VO interferon (which now has 1 million units of VO) into 4.9 mls of normal saline or distilled water in the screw-top bottle: this gives you 100,000 units per 0.5 ml. To be sure to get all of the 0.1ml of interferon out of the syringe, draw the saline back into the syringe then gently put back into the mix and swirl. This diluted mixture will last up to 21 days at 4°C (a fridge). Remove the needle from the syringe: you will be giving this syringe to the cat's guardian to administer to the cat.
5. The cat should be given 0.5 mls of the VO mixture daily. Get the cat's guardian to give the first dose in the surgery, with you instructing him or her how to draw up 0.5ml into the syringe, and how to administer it. Tilt the cat's head upwards gently, holding the mouth closed, and gently squirt the VO into the side of the mouth at the commissure of the lips. Teach the cat's guardian to watch for the cat to swallow. If the cat absolutely cannot be dosed in this way, then drop it gently into the eyes, or – last resort- put it onto a little food.
6. The diluted VO mixture should be kept in the fridge and a new mix made up every 10 days or so, when the old vial runs out. Do not use hot water to thaw the next 0.1ml or you will inactivate the interferon, simply allow it to thaw at room temperature.

Do not freeze the diluted VO or it will lose its activity.

References

[Addie DD, Covell-Ritchie J, Jarrett O, Fosbery M. 2020. Rapid Resolution of Non-Effusive Feline Infectious Peritonitis Uveitis with an Oral Adenosine Nucleoside Analogue and Feline Interferon Omega. *Viruses* 12, 1216; doi:10.3390/v12111216.](#)

Gil S, Leal RO, Duarte A, McGahie D, Sepúlveda N, Siborro I, Cravo J, Cartaxeiro C, Tavares LM. 2013. Relevance of feline interferon omega for clinical improvement and reduction of concurrent viral excretion in retrovirus infected cats from a rescue shelter. *Res Vet Sci.* Jun;94(3):753-63

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