

## I-131 TREATMENT FREQUENTLY ASKED QUESTIONS

### **Q. What is Hyperthyroidism?**

**A.** Hyperthyroidism (overactive thyroid glands) is a very common disorder of older cats. It is caused by an increase in production of thyroid hormones from the thyroid glands, which are situated in the neck.

Thyroid hormones are responsible for regulating many body functions, including growth and activity levels, but in older animals its most profound effect is on metabolism. Hyperthyroidism causes a high metabolism, which has many negative effects on the body. Weight loss, a high heart rate and high blood pressure are just a few of the common problems encountered by hyperthyroid cats. If left untreated, the increased metabolism will eventually cause organ failure (heart, kidney, blindness due to retinal detachment) and premature death.

### **Q. How does radioiodine therapy work?**

**A.** Radioactive Iodine (a substance called I-131) therapy is a minimally invasive alternative to performing surgery on your cat's thyroid gland or giving your cat daily medication. Best of all, over 93% of cats are cured of hyperthyroidism with just one I-131 injection.

The thyroid gland is the only gland or organ in the body to naturally use iodine. As a result, when radioactive iodine is injected into the body, it goes right to the thyroid gland, where it's absorbed by the hyperactive thyroid cells, destroying them. It doesn't travel anywhere else in the body or affect any nearby structures.

Any radioactive iodine not taken up by the thyroid gland is naturally eliminated through urine and faeces within a few days.

### **Q. What happens during treatment?**

**A.** We begin our treatment with thyroid scintigraphy. Scintigraphy is essentially a scan that allows us to classify the extent of disease. Cats are injected with a small radionuclide and 20 minutes later a gamma camera acquires a thyroid image. We use this image, along with several other factors to calculate your cat's radioactive iodine dose. This cat-specific approach allows us to administer the lowest I-131 dose possible to achieve the best chance of euthyroidism (normal thyroid function).

Following treatment, iodine is concentrated in the thyroid gland where it emits beta-radiation, killing the surrounding hyper-functioning cells. The iodine that is not concentrated in the thyroid gland is very rapidly eliminated in the urine, saliva and faeces in the first couple of days following the injection.

## **Q. How long are cats hospitalised?**

**A.** The hospitalisation period varies from cat to cat but is generally 5 - 7 days. The effective half-life of the radioiodine (decay of radioactivity) can be quite variable depending upon each cat's ability to excrete it and the amount of radioiodine bound to the thyroid. Due to the removal of iodine through the kidney, cats with pre-existing kidney disease may have to stay longer because the radioiodine may not be removed from the body as quickly. These patients will be actively monitored to determine when they are able to be released.

Typically, cats enter our facility on Mondays, and are usually safe to discharge 5 - 7 days later, once the exposure rate from the radioactivity in the body reaches a level that is deemed to be safe to the general public.

## **Q. Can I visit and how long will I find out about my cat's condition during hospitalisation?**

**A.** Due to strict safety regulations, you won't be permitted to visit your cat for the duration of hospitalisation.

Because radiation safety regulations require that direct contact with hospitalised radioiodine patients be kept to a minimum, your cat will receive attention two times daily from one of our radioiodine therapy technicians. During this time your cat will receive routine care (feeding, watering, cage clean-up). Between visits, we use a webcam to monitor patients.

We operate on a lights on/ lights off basis. For normal daylight hours we provide natural lighting, and television for our patients. From the period of 6pm to 8am we provide lights out time, allowing for a somewhat natural balance.

We will call, text and email you during your cat's hospitalisation to let you know how your cat is doing.

## **Q. Can I bring things from home for my cat?**

**A.** Toys and blankets from home are not permitted into our facility. This is because they will become contaminated and create more radioactive waste to be disposed of.

**You are welcome and encouraged to bring your own cat's food and treats for the duration of the hospitalisation, however. This will make their stay with us more comfortable.**

## **Q. Do I need to stop anti-thyroid medications and dietary therapy prior to treatment?**

**A.** Yes! Medication and dietary therapy (Hills Y /D etc) need to be ceased prior to treatment. We recommend that most cats discontinue medication up to 2 weeks prior to the scheduled treatment date. Each case is assessed individually, and we will let you know your pet's medication protocol, washout period and timeline.

## **Q. What happens if my cat gets sick during their stay?**

**A.** Although it is unlikely that radioiodine patients will become ill during their hospitalisation with us, we know that most hyperthyroid patients are senior and geriatric cats, and not uncommonly, they have other health issues in addition to their thyroid disease. Any patient that becomes ill, even critically, while hospitalised for radioiodine treatment, will receive full care with arrangements made to minimize radiation exposure to our personnel. Rest assured that needed treatment will not be denied.

## **Q. How quickly will this treatment take to work?**

**A.** Most cats return to normal thyroid function within 1-3 months after treatment. While rare, some cats may require additional treatments. We recommend rechecking thyroid hormone and kidney function 7-8 weeks post treatment. After 6 months, the T4 should no longer be elevated.

## **Q. What is the cost of radioiodine treatment?**

**A.** The estimate for radioactive iodine treatment includes the exam, radioactive iodine administration and 7 days hospitalisation and is \$3520. Whilst Radioiodine therapy has a higher upfront cost than other options, it is less expensive than other options over the lifetime of the cat. Radioiodine treatment results in fewer thyroid blood tests for the remainder of the cat's life, which makes the treatment more cat friendly from the patient's point of view as well.

## **Q. When should I attend my normal vet for follow-up?**

### **A. 1 WEEK POST TREATMENT**

Your cat should have a basic health exam, at your normal vet 1 week after discharge.

### **7-8 WEEKS POST TREATMENT**

We advise that thyroid-hormone level, kidney function and weight be checked 7-8 weeks following treatment. After that, we leave it to your vet to determine any further monitoring, although they can contact us at any time for advice.

## **Questions?**

If you have any questions, please feel free to call the clinic.