

RADIOACTIVE IODINE REFERRING VET PROTOCOL

Radioactive iodine therapy is the treatment of choice for feline hyperthyroidism. It offers the highest cure rate of all available treatment options and has been used to treat cats for over 30 years.

Below is a list of questions to aid you in screening your hyperthyroid feline patients prior to referral so the procedure can be as smooth as possible for both you and your patients.

What screening tests are required prior to radioactive iodine therapy?

We insist on having a **T4, CBC and serum biochemistry within one month of the anticipated treatment date**. These tests are considered necessary to confirm hyperthyroidism and to screen for significant comorbidities including renal disease.

Which cats aren't suitable for treatment?

Cats should be relatively stable before being considered for radioiodine therapy. Cats that have significant comorbidities such as advanced kidney or heart disease may not be good candidates for radioiodine therapy. If you wish to discuss a particular case, feel free to give us a call or send an email.

What's Involved?

- We perform thyroid scintigraphy to allow us to classify cats into 1 of 3 patterns of thyroid disease unilateral, bilateral, or multifocal disease.
- Cats are injected with a small radionuclide dose administered subcutaneously. Approximately 20 minutes later, the patients are laid on their abdomen or side while the gamma camera acquires the thyroid image. Cats are heavily sedated for this procedure.
- Thyroid scintigraphy is considered the "gold standard" for evaluating the stage and extent of thyroid tumours and allows us to calculate the percent of thyroidal uptake of the injected sodium 99mTc-pertechnetate (TcTU). Using an algorithm, we then calculate the cat's individual I-131 dose. This cat-specific approach allows us to administer the lowest I-131 dose possible to achieve euthyroidism and reduces the odds of iatrogenic hypothyroidism and associated kidney disease.
- A single dose of radioactive iodine is given by subcutaneous injection. The iodine is concentrated in the thyroid gland where it emits beta-radiation, killing the surrounding hyper-functioning cells. Parathyroid gland function is unaffected.
- The iodine that is not concentrated in the thyroid gland is very rapidly eliminated in the urine, saliva and faeces in the first few of days following the injection.

How successful is it?

A single radioactive iodine injection is successful in about 93% of cats.

What day is treatment performed?

Cats are welcomed into our facility at 8am on Mondays and have their scintigraphy screening assessment and radioiodine treatment. Cats must stay with us in an isolation facility for several days after the injection until most of the radioactivity has been eliminated. Generally cats return home 5 - 7 days later.

What is the cost of treatment?

The estimate for radioactive iodine treatment includes the exam, scintigraphy screen, radioactive iodine administration and 5 days hospitalisation and is \$3520 (including GST).

This does not include the cost of treatment for any concurrent medical problems or any unexpected diagnostic tests.

Do thyroid medications & dietary therapy need to cease prior to I-131 therapy?

Cats on treatment will need to stop medication and dietary therapy 2 weeks prior to having I131 treatment, however for some cat's discontinuation of the treatment is not feasible. These cases will need to be individually discussed with the client and ourselves. It would be much appreciated if you could make a comment in your clinical history with respects to this and your assessment.

Aftercare

All clients receive home care instructions and are advised to be rechecked by their regular vet 7 days after discharge. Cats should have repeat blood tests 6-8 weeks after treatment to assess progress.