



Thyronorm[®]

5mg/mL Thiamazole

A simple solution for
a complex problem



isfm **easy
to give**
www.icatcare.org/vets



**FIRST EVER ORAL LIQUID
THERAPY REGISTERED**
for feline hyperthyroidism


Norbrook[®]



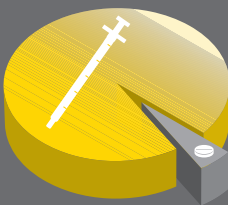
Thyronorm[®]



**UK Vets
have made Thyronorm
the market leading treatment
for hyperthyroidism**



99% are likely / very likely to recommend Thyronorm[®] ✓



95% found Thyronorm[®] successful as an alternative to tableting ✓



84% found Thyronorm[®] easier to offer low / in-between doses ✓



92% of owners' feedback ✓ stated it was easier to give than tablets



89% expect Thyronorm[®] to improve compliance compared with other medical options ✓

Survey results from 200 UK vets who have used Thyronorm (October 2017). Data on file.

**Norbrook supports you with staff CPD,
product information and client education.**



Visit the Norbrook Nexus
to view our entire clinic
support range.

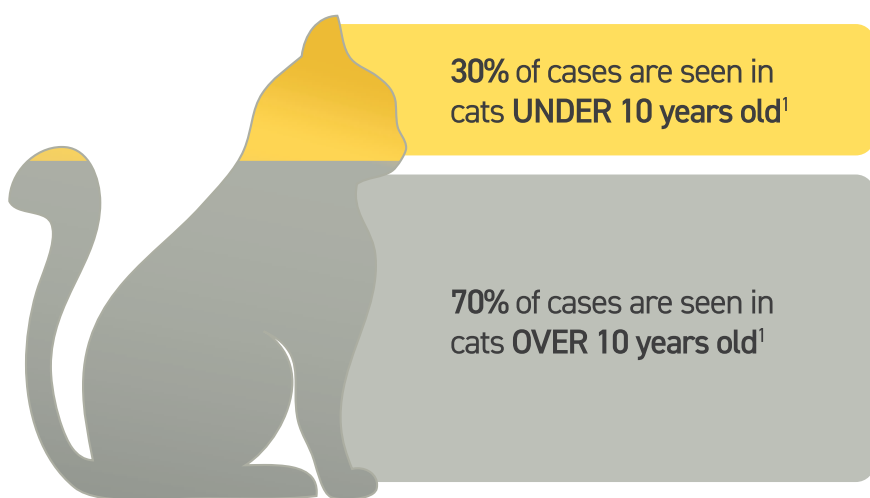
www.norbrook.com/nexus



HYPERTHYROIDISM - a complex problem

Prevalence of hyperthyroidism

Hyperthyroidism is the most diagnosed endocrine disease of cats.



Clinical signs of hyperthyroidism

Loss of muscle mass, polyphagia combined with weight loss, behavioural changes, increased heart rate and/or arrhythmia are very common².

NOTE: Stress can worsen clinical signs of hyperthyroidism - it is important to treat patients gently and sensitively.

Pet parent bond

The physical and behavioural changes that hyperthyroidism causes in pets makes this a stressful disease for pet parents; as even affectionate cats become irritable and lose condition.

Fortunately, now there is a ready-to-use solution that cats love which can help you reduce the pet parent's stress and support the pet-parent bond all whilst improving their pet's health.

Now that's excellent medicine!

References

1. Stephens, M.J., Neill, DGO., Church, DB., McGreevy, PD., Thomson, PC., Brodbelt, DC. (2014) Feline hyperthyroidism reported in primary-care veterinary practices in England: prevalence, associated factors and spatial distribution Veterinary Record 175, 458
2. Caney, S. Caring for a cat with hyperthyroidism. 2016. Vet Professionals
3. Zimmerman, T.M. et al. (2014) Ease of use of Semintra- cat owner feedback under European field conditions. J Feline Med Surg. 16, 764
4. ISFM easy to give award 2017



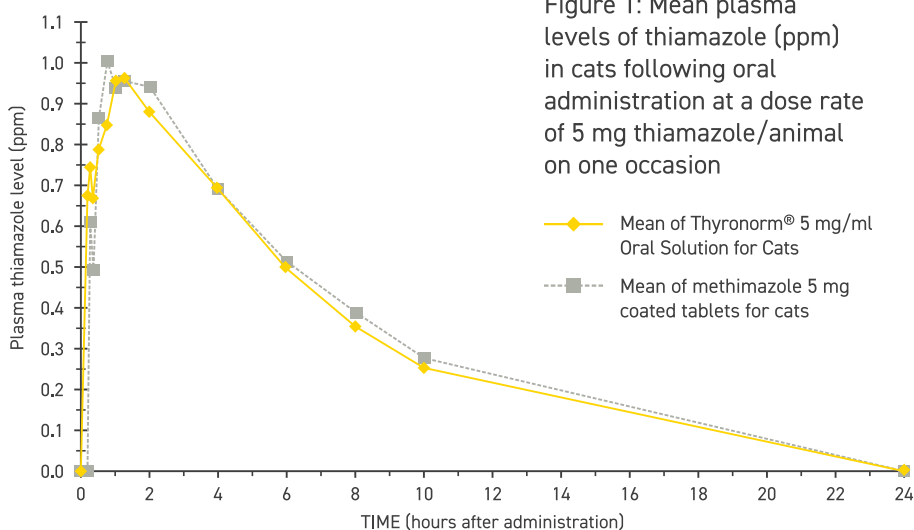
Thyronorm®



Initial dosing regimen

- Starting dose 2.5 mg thiamazole (0.5 ml volume) twice daily
- At this dosage a 30 mL bottle will last one month and a 100 mL will last over three months.

✓ Thyronorm 5 mg/ml thiamazole (methimazole) has proven *in-vivo* bioequivalence to methimazole containing tablets



..a simple solution



Improving compliance

- ✓ 97.4% of owners preferred using liquids for long term medication of their cats³
- ✓ Thyronorm is a honey flavoured liquid solution
- ✓ Thyronorm is readily accepted⁴ making it a great choice of treatment for cases where compliance is a concern
- ✓ Available in 30 ml and 100 ml bottles



In 2017 Thyronorm was awarded the Easy To Give award by International Cat Care



Benefits of Thyronorm:

- ✓ Easy to give
improving pet owner compliance
- ✓ Easy to dispense
taking one headache out of your day
- ✓ Easy to titrate
increasing your treatment options
- ✓ A simple solution for hyperthyroidism treatment.

Thyronorm® Oral Solution for Cats

PRESCRIPTION ANIMAL REMEDY
KEEP OUT OF REACH OF CHILDREN
FOR ANIMAL TREATMENT ONLY
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

THYRONORM® ORAL SOLUTION FOR CATS

5 mg/mL Thiamazole

Indications

Thyronorm Oral Solution for Cats is indicated for both the stabilisation of hyperthyroidism in cats prior to surgical thyroidectomy and for the long term treatment of feline hyperthyroidism.

DIRECTIONS FOR USE: Contraindications

Do not use in cats suffering from concurrent systemic diseases such as severe primary liver disease or diabetes mellitus.

Do not use in cats showing signs of autoimmune disease such as anaemia, multiple inflamed joints, skin ulceration and crusting.

Do not use in animals with disorders of white blood cells, such as neutropaenia and lymphopaenia. Symptoms may include lethargy and increased susceptibility to infection.

Do not use in animals with platelet disorders and coagulopathies (particularly thrombocytopenia). Symptoms may include bruising and excessive bleeding from wounds.

Do not use in pregnant or lactating females.

Do not use in case of hypersensitivity to the active substance or to any of the excipients.

Precautions

Concurrent treatment with phenobarbital may reduce the clinical efficacy of thiamazole. Thiamazole is known to reduce the hepatic oxidation of benzimidazole wormers and may lead to increases in their plasma concentrations when given concurrently. Thiamazole is immunomodulatory, therefore this should be taken into account when considering vaccination programmes.

Do not administer in food as efficacy of the product when administered via this route has not been established.

Laboratory studies in rats and mice have shown evidence of teratogenic and embryotoxic effects of thiamazole. In cats, the safety of the veterinary medicinal product has not been established during pregnancy or lactation. From man and rats it is known that the drug can cross the placenta and concentrates in the foetal thyroid gland. There is also a high rate of transfer into breast milk.

Side Effects (Adverse Reactions)

Adverse reactions have been reported following long term control of hyperthyroidism. In many cases, signs may be mild and transitory and not a reason for withdrawal of treatment. The more serious effects are mainly reversible when medication is stopped. Possible immunological side effects include anaemia, with rare adverse reactions/side effects including thrombocytopenia and serum anti-nuclear antibodies, and, very rarely, lymphadenopathy can occur.

Symptoms may include bruising, excessive bleeding, multiple inflamed joints and skin changes such as crusting and ulceration. Treatment should be stopped immediately and alternative therapy considered following a suitable period of recovery. Following long-term treatment with thiamazole in rodents, an increased risk of neoplasia in the thyroid gland has been shown to occur, but no evidence is available in cats.

Adverse reactions are uncommon. The most common clinical side effects that are reported include

- vomiting
- inappetence/anorexia
- lethargy (extreme tiredness)
- severe pruritus and excoriations of the head and neck
- jaundice (yellow discolouration) of membranes of the mouth, eye and skin associated with liver disease
- increased bleeding and /or bruising
- associated with liver disease

- haematological (blood cell) abnormalities (eosinophilia, lymphocytosis, neutropaenia, lymphopaenia, slight leucopaenia, agranulocytosis, thrombocytopenia or haemolytic anaemia).

These side effects resolve within 7 – 45 days after cessation of thiamazole therapy. If you notice any serious effects or other effects not mentioned in this package leaflet, please inform your veterinary surgeon.

In tolerance studies in young healthy cats, the following dose-related clinical signs occurred at doses of up to 30 mg thiamazole/animal/day: anorexia, vomiting, lethargy, pruritus and haematological and biochemical abnormalities such as neutropaenia, lymphopaenia, reduced serum potassium and phosphorus levels, increased magnesium and creatinine levels and the occurrence of anti-nuclear antibodies. At a dose of 30 mg thiamazole/day some cats showed signs of haemolytic anaemia and severe clinical deterioration.

Some of these signs may also occur in hyperthyroid cats treated at doses of up to 20 mg thiamazole per day. Excessive doses in hyperthyroid cats may result in signs of hypothyroidism. This is however unlikely, as hypothyroidism is usually corrected by negative feedback mechanisms. Please refer to the "Adverse reactions" section of this package leaflet.

If overdose occurs, stop treatment and give symptomatic and supportive care.

Dosage and Administration

In use shelf life: Use the contents within 6 months of first broaching the container. Discard the unused portion.

For oral use only. The product should be administered directly into the mouth of the cat. The recommended starting dose is 5 mg or 1 mL per day. The total daily dose should be divided into two 0.5 mL doses administered morning and evening. In order to enhance stabilisation of the hyperthyroid patient the same dosing schedule relative to feeding should be used daily. After regular check-ups your veterinarian may adjust the dose. For long-term treatment of hyperthyroidism, the animal should be treated for life.

Additional information for the treating veterinarians: Haematology, biochemistry and serum total T4 should be assessed before initiating treatment and after 3 weeks, 6 weeks, 10 weeks, 20 weeks and thereafter every 3 months. At each of the recommended monitoring intervals, the dose should be titrated to effect according to the total T4 and to clinical response to treatment.

Standard dose adjustments should be made in increments of 2.5 mg or 0.5 mL and the aim should be to achieve the lowest possible dose rate. In cats that require particularly small dose adjustments, increments of 1.25 mg or 0.25 mL can be used. If total T4 concentration drops below the lower end of the reference interval, and particularly if the cat is showing clinical signs of iatrogenic hypothyroidism (e.g. lethargy, inappetence, weight gain and/or dermatological signs such as alopecia and dry skin), consideration should be given to reducing the daily dosage and/or dosing frequency. If more than 10 mg per day is required animals should be monitored particularly carefully. The dose administered should not exceed 20 mg per day.

Advice on correct administration: Follow the dosing instructions and duration of treatment advised by the veterinary surgeon.

General Directions

Special precautions for use in animals: Cats should always have access to drinking water. Please inform the veterinarian if your cat has kidney problems. If your cat suddenly appears unwell during treatment, particularly if they are febrile (have a high temperature), they should be examined by a veterinarian as soon as possible and have a blood sample taken for routine haematology.

Information for the treating veterinarian: If more than 10 mg per day is required animals should be monitored particularly carefully. Use of the product in cats with renal dysfunction should be subject to careful risk/benefit assessment by the clinician. Due to the effect thiamazole can have on reducing the glomerular filtration rate, the effect of therapy on renal function should be monitored closely as deterioration of an underlying condition may occur.

Haematology must be monitored due to risk of leucopaenia or haemolytic anaemia. Any animal that suddenly appears unwell during therapy, particularly

if they are febrile, should have a blood sample taken for routine haematology and biochemistry. Neutropaenic animals (neutrophil counts $<2.5 \times 10^9/L$) should be treated with prophylactic bactericidal antibacterial drugs and supportive therapy. As thiamazole can cause haemoconcentration, cats should always have access to drinking water.

Interaction with other medicinal products and other forms of interaction: Please inform the veterinarian if your cat is receiving any other medicines or if your cat is going to be vaccinated.

Overdose (symptoms, emergency procedures, antidotes): If you think you have given your cat more than you should (an overdose), stop treatment and contact your veterinarian who may need to give symptomatic and supportive care. For signs of overdose, please refer to the "Adverse reactions" section of this package leaflet.

Incompatibilities: In the absence of compatibility studies this veterinary medicinal product must not be mixed with other veterinary medicinal products.

Safety Directions

Wash hands with soap and water after administration of the product and handling the vomit or of litter used by treated animals.

First Aid

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

Additional User Safety

Special precautions to be taken by the person administering the veterinary medicinal product to animals: People with known hypersensitivity (allergy) to thiamazole or one of the excipients should avoid contact with the veterinary medicinal product. If allergic symptoms develop, such as a skin rash, swelling of the face, lips or eyes or difficulty in breathing, you should seek medical attention immediately and show the package leaflet or label to the doctor. Thiamazole may cause gastrointestinal disturbances, headache, fever, joint pain, pruritus (itching) and pancytopenia (decrease in blood cells and platelets). Avoid dermal and oral exposure, including hand-to-mouth contact. Do not eat, drink or smoke while handling the product or used litter. Wash hands with soap and water after administration of the product and handling the vomit or of litter used by treated animals. Wash any spillages from skin immediately. Following administration of the product any residual product remaining on the tip of the dosing syringe should be wiped clean with a tissue. The contaminated tissue should be immediately disposed of. The used syringe should be stored with the product in the original carton. In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician. This product may cause eye irritation. Avoid eye contact including hand to eye contact.

In case of accidental eye contact, rinse eyes immediately with clean running water. If irritation develops, seek medical advice.

As thiamazole may cause harm to the unborn child, women of child-bearing age must wear non-permeable single use gloves when administering the product or handling the litter/vomit of treated cats. If you are pregnant, think you may be pregnant or are attempting to conceive, you should not administer the product or handle the litter/vomit of treated cats.

Disposal

Dispose of container by wrapping with paper and putting in garbage.

Storage

Store below 30°C (room temperature). Do not freeze.

Presentation

Thyronorm Oral Solution for Cats is available in 30 and 100 mL presentations.

APVMA Approval No. 91237/131482

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