

# HELP DOGS ESCAPE THE STRESS OF **SEPARATION ANXIETY**



# WHY SEPARATION-RELATED DISORDERS (SRDs) ARE A CONCERN...

## SRDs are common

73%

of dog owners said that their dog **has experienced separation anxiety**<sup>1</sup>



The majority of **vets encounter behavioural queries weekly**<sup>2</sup>



SRDs can affect all breeds, both sexes and develop at any age

## The consequences of SRDs can be significant



SRDs can be **hugely distressing for both dogs and owners**, and have an impact on many aspects of their lives<sup>3</sup>



Undesirable behaviours' are **one of the top three reasons for canine euthanasia**<sup>4</sup>



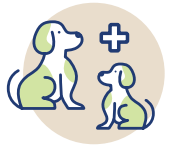
For 23% of **dogs that are relinquished by their owners**, the reason is behavioural issues<sup>5</sup>

“He literally chewed **THROUGH THE DOORS**”



## COVID - the SRD 'perfect storm'

Circumstances over the last few years mean that the risk of SRDs are higher than ever



Increased pet ownership during the pandemic



Younger, more inexperienced owner demographic



Higher rate of adoptions (dogs more likely to have behavioural problems)<sup>6</sup>



Change in lifestyle following lock-downs (e.g. return to work)

*"It's making living 'normal' life really, really difficult"*



## THE CHALLENGES OF ADDRESSING SRDs - IDENTIFICATION

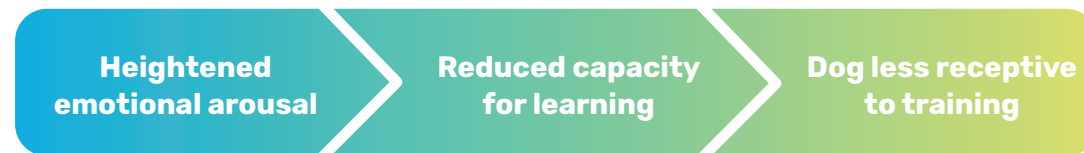
- ✓ Behaviours are displayed away from the clinic
- ✓ Reliance on owner to report/seek advice
- ✓ Not all potentially concerning canine behaviours are perceived by the owners to be problematic<sup>7</sup>
- ✓ Owners don't always ask for help when they need it, due to embarrassment or simply 'being used to' problem behaviours
- ✓ Dog trainers and online searches are preferred as initial source of advice for problem behaviours by owners<sup>7</sup>
- ✓ Many vets don't feel confident identifying with behavioural problems<sup>2</sup>

**Vets have an opportunity to make a real difference to dogs and their owners by proactively enquiring about SRDs**



# THE CHALLENGES OF ADDRESSING SRDs - TREATMENT

Behavioural modification training should be the core of effective treatment of SRDs, however this comes with challenges:



This is exacerbated by the following:



Owners attempting treatment without appropriate knowledge or guidance



Large time and effort investment required from owners to achieve results

This is why a **multi-modal approach** that includes clear, supportive guidance for owners is typically most effective when managing SRDs:

## Behavioural modification

...supported by



**Medication**



**Complementary feed**

(e.g. supplements)



**Environmental change**

(e.g. pheromones)

Veterinary teams are well placed to customise the multi-modal plan to the needs of each dog.

## TREATING SRDs

**For moderate to severe cases, psychotropic medications:**

- ✓ help to directly reduce the clinical signs of separation anxiety
- ✓ improve receptiveness to behavioural modification training<sup>8-11</sup>



## CLOMICALM®

Effective management of SRDs



# CLOMICALM<sup>®</sup> - PROVEN EFFICACY

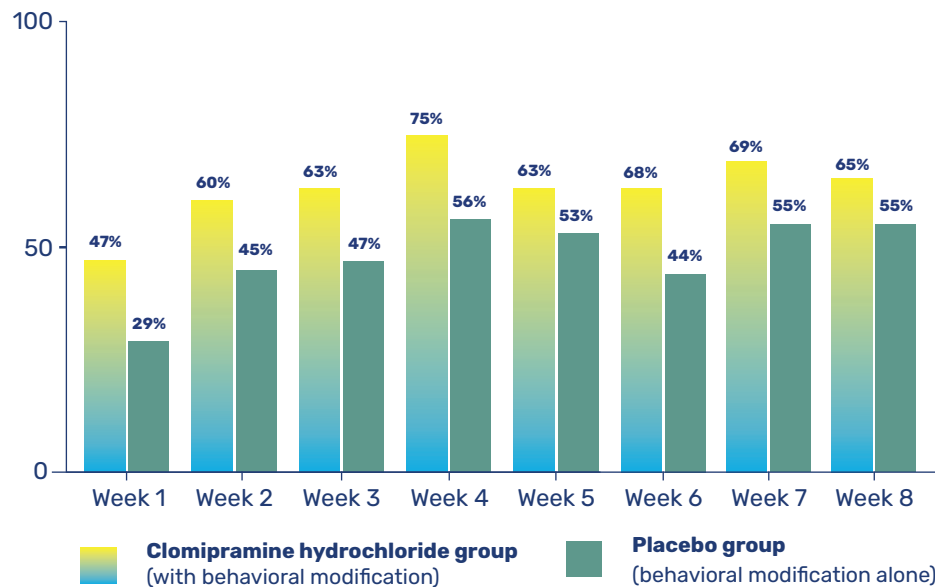
## Using Clomicalm<sup>®</sup> alongside behavioural modification training:

Improves the signs of SRDs up to three times faster, compared to behavioural training alone<sup>8</sup>

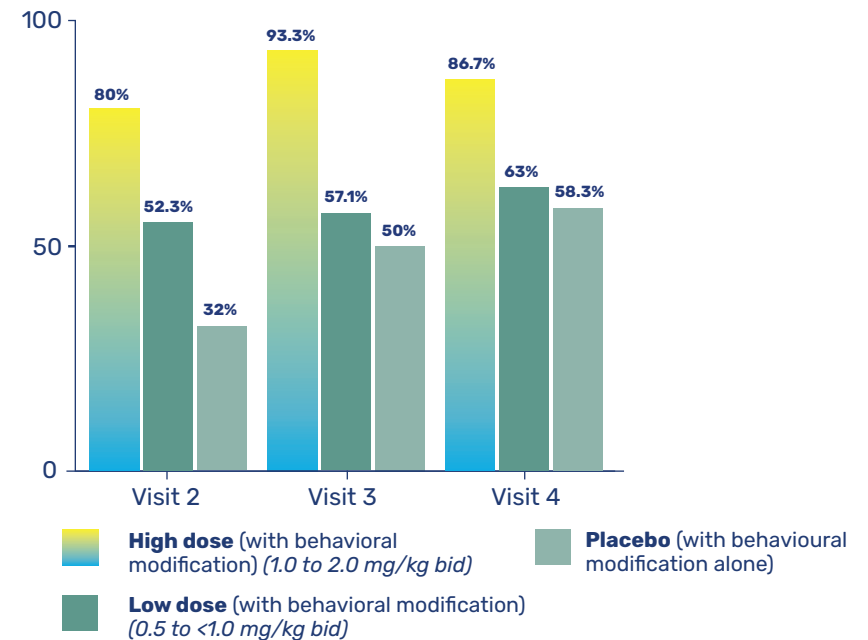


Achieves greater improvement in clinical signs of SRDs compared to behavioural modification training alone<sup>12</sup>

Percentage of dogs considered improved following behavioural modification alone (placebo) and in conjunction with clomipramine



Efficacy assignment of unwanted behaviours; destruction, in placebo, low and high dose Clomipramine groups



# CLOMICALM® - A TRUSTED SOLUTION



## Easy to use



Flavoured tablets



3 tablet sizes- suitable for a wide range of dog sizes from 1.25kg



Easily divisible, for accurate dosing



Can be given with or without food



30 tablet packets, for a full month administration

MANUFACTURED IN FRANCE

 **Clomicalm®**  
(clomipramine hydrochloride)





# HOW CLOMICALM® WORKS - UNDERSTANDING THE NEUROCHEMISTRY OF BEHAVIOURAL RESPONSE

## Neurotransmitters and their associations with behaviour:

*Concentrated in the midbrain, the hypothalamus, and the limbic system - a section of the brain where the control and expression of emotions occurs*

**SEROTONIN:**  
control of fear, anxiety and aggression  
*(low serotonin is a principal element of the fear mechanism)*

**NORADRENALINE:**  
behavioural focus, memory

**DOPAMINE:**  
pleasure, memory, concentration

**ACETYLCHOLINE:**  
increases response to emotional stimuli

**GAMMA-AMINOBUTYRIC ACID (GABA):**calming

*Chemically related = the monoamine neurotransmitters*

**CLOMIPRAMINE**, the active ingredient in Clomicalm®, is a potent and selective inhibitor of serotonin and noradrenaline re-uptake at the neuronal synapse, potentiating their effects

# HOW CLOMICALM® WORKS

## Clomipramine

Inhibits serotonin re-uptake

IS METABOLISED TO

## Desmethylclomipramine

Inhibits noradrenalin re-uptake

This re-uptake inhibition has the effect of potentiating the effects of these neurotransmitters, resulting in positive effects on mood and behaviour, with no drowsiness.

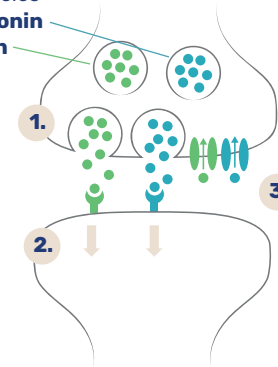
**Antagonises cholinergic muscarinic receptors**

### DID YOU KNOW?

Therapeutic antagonism of cholinergic muscarinic receptors has shown promise of rapid clinical improvement of symptoms in human patients with mood disorders.<sup>14,15</sup>

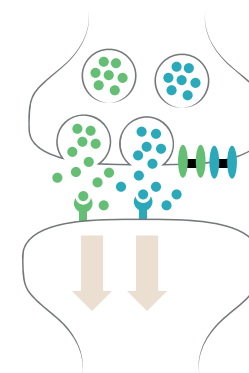
## The neuronal synapse:

Pre-synaptic vesicles containing **serotonin** and **noradrenalin**



1. Pre-synaptic vesicles fuse with the membrane of the presynaptic neurone, releasing neurotransmitter contents into synapse.
2. Neurotransmitter binds to specific receptors located on the post-synaptic membrane, to convey the impulse along the post-synaptic neurone.
3. Neurotransmitter is taken back into pre-synaptic neurone via specific gates, to be recycled.

## With Clomipramine:



**CLOMICALM®** blocks the re-uptake gates, increasing the relative availability of serotonin and noradrenaline and so potentiating their effects.

## HOW QUICKLY DOES CLOMICALM® WORK?

01  
week

almost half of dogs  
show improvement<sup>16</sup>



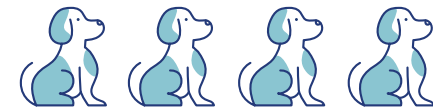
04  
weeks

three quarters of dogs  
show improvement<sup>16</sup>



2-3  
months

almost all dogs  
show improvement<sup>8</sup>



3+  
months

almost all (83%) dogs continue to improve<sup>13</sup>



# MAXIMISING OWNER COMPLIANCE

As with all long-term treatments, compliance is key for a successful treatment outcome. Dog owners must feel involved, supported and confident in the recommendations made to them, for them to remain compliant with those recommendations.



## INSPIRE

*Help owners understand the positive outcome that they are working towards and the benefits for them and their beloved dog*



## EDUCATE

*Explain the importance of each treatment element and how it all works together synergistically*



## SUPPORT

*Acknowledge whatever emotion the owner reacts with to their dog's SRD, and remain reassuring and understanding*



## MANAGE EXPECTATIONS

*It can take time for full results to be seen*

Our suite of campaign materials aims to encourage effective use of Clomicalm® by dog owners

# CLOMICALM<sup>®</sup> AND OTHER LICENSED ACTIVES FOR SRDS

Active	Type of drug	Mode of action	Notable contraindications / adverse reactions* **
<b>Clomipramine</b>	<b>Non-selective monoamine re-uptake inhibitor (possessing the properties of a serotonin re-uptake inhibitor and a tricyclic antidepressant)</b>	<b>Inhibits serotonin and noradrenaline re-uptake (increasing synaptic concentrations) Antagonises cholinergic muscarinic receptors</b>	<b>Do not use in male breeding dogs Use with care in dogs with cardiovascular dysfunction, epilepsy, narrow angle glaucoma, reduced gastrointestinal motility or urinary retention</b>
<b>Fluoxetine</b>	Selective serotonin re-uptake inhibitor (SSRI)	Increases synaptic concentrations of serotonin	Do not use in dogs <4kg Do not use in dogs with epilepsy/history of seizures May cause: <ul style="list-style-type: none"> <li>• Decreased appetite</li> <li>• Lethargy</li> <li>• Urinary tract disorders</li> <li>• CNS signs (e.g. incoordination disorientation)</li> </ul>
<b>Selegiline Hydrochloride</b>	Monoamine oxidase inhibitor (MAO-B)	Modifies the concentration of monoaminergic neurotransmitters	Do not administer from the day before until the day after administration of an alpha-2 agonist. Do not administer concomitantly with pethidine, fluoxetine or phenothiazines. Potentiates the narcotic action of morphine Can increase aggression

\*Listed on product SPC as a special precaution for use, contraindication (other than avoidance if the animal has a known sensitivity) or a 'very common' (more than 1 in 10 animals) or 'common' (more than 1 but less than 10 animals in 100) adverse reaction.

\*\*All drugs that modify serotonin levels carry a risk of activating 'serotonin syndrome'. This condition is rare at recommended doses, and signs typically appear within a few hours of first administration. These signs include: Confusion, Agitation or restlessness, Dilated pupils, Tachycardia, Muscle tremors/rigidity, Seizures.

# VIRBAC: HELPING ACHIEVE CONFIDENT BEHAVIOUR

As well as good health, we understand the importance of happiness at Virbac, for both pets and their owners. This forms the basis for our dedication to improving behavioural medicine for pets across the globe, by helping vets and pet owners confidently address behavioural problems.



# VIRBAC: SRD EDUCATIONAL CAMPAIGN ASSETS

Here are a suite of assets to help support veterinary teams and pet owners to effectively treat and manage separation anxiety disorders.



## SRD case management guide

...helping vets understand and feel more confident about SRDs, including how to identify and manage them.



## Pre prescription pet owner leaflet

...reliable resource to help educate pet owners and provide them with easy to understand reference information.



## Working with owners in cases of separation disorders (SRDs)

...a quick reference guide for vets about how best to approach one of the key elements of treating SRDs; owner communication.



## Post prescription pet owner leaflet

...guidance for pet owners to help them understand the role of the product and actions to increase the likelihood of success.

# THE VIRBAC BEHAVIOURAL HEALTH RANGE

The Virbac behavioural health range has been carefully developed to make sure that vets and pet owners have a single, reliable source of effective and excellent quality products that can be trusted. From the acquisition of proven prescription medications to the development of innovative new delivery methods, you can be assured that we have a behavioural health product to suit all needs.



**Clomicalm®**  
(clomipramine hydrochloride)



## Clomicalm®

Licensed as an aid in the treatment of separation-related disorders, in dogs, in combination with behavioural modification training.



## Anxitane Chewable Tablets

Contain L-Theanine, an amino acid that is instrumental in dopamine neurotransmitter function, helping to maintain calm and reduce anxiety in dogs, without causing drowsiness.



# CLOMICALM® IN SUMMARY

**Clomicalm® provides trusted, effective relief from the distress of SRDs for dogs and their owners**

## Indication

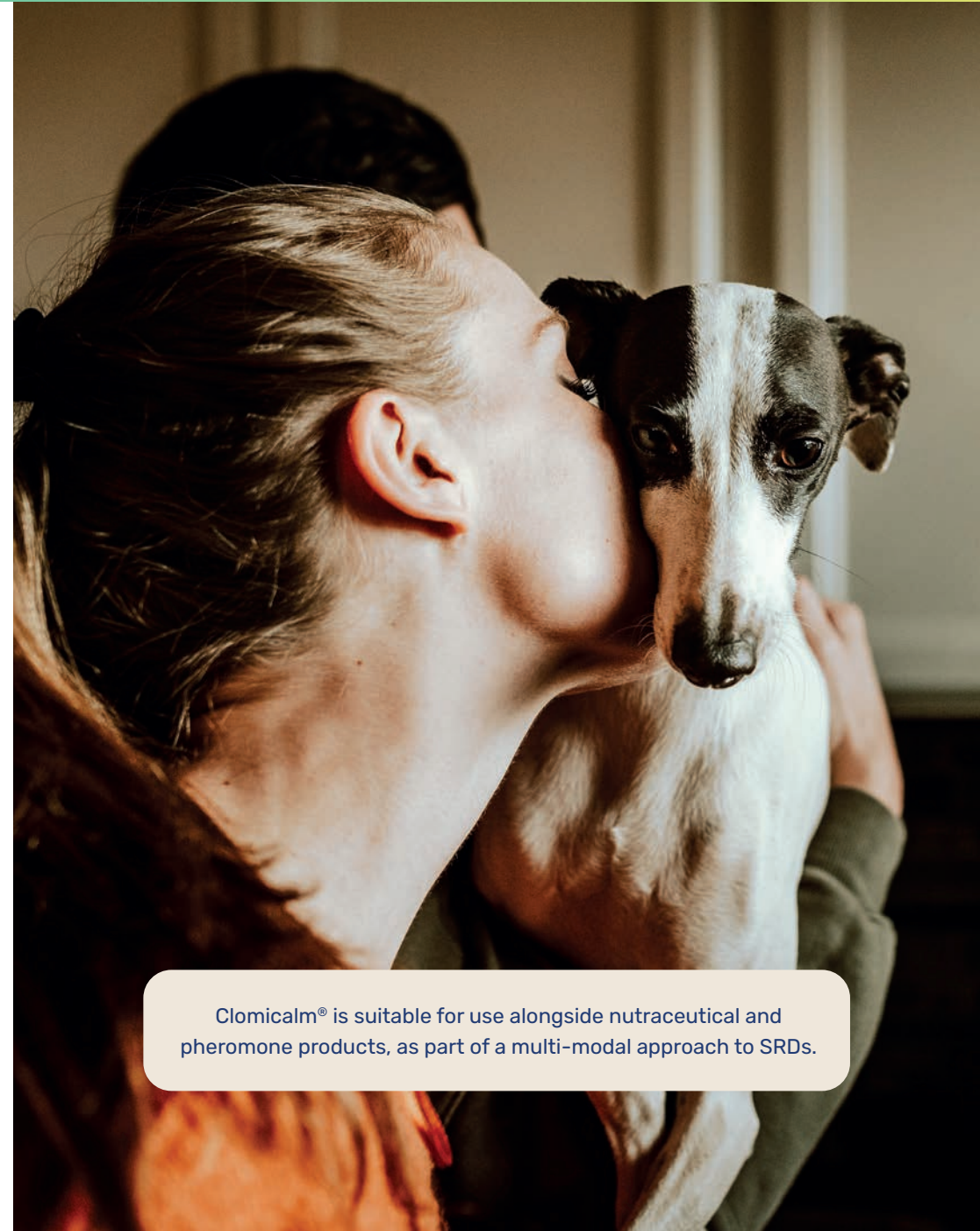
As an aid in the treatment of separation-related disorders in dogs manifested by destruction and inappropriate elimination (defaecation and urination) and only in combination with behavioural modification techniques.

## Key characteristics

- ✓ Contains trusted active Clomipramine
- ✓ 3 tablet sizes-suitable for a wide range of dog sizes from 1.25kg
- ✓ Easily divisible, for accurate dosing
- ✓ Flavoured tablets that can be given with or without food

## Benefits

- ✓ Improves the speed and outcomes of behavioural modification training in SRD cases<sup>8,12</sup>
- ✓ Effective within just 3 months\*<sup>13</sup>
- ✓ Easy to use
- ✓ Limited adverse events reported



Clomicalm® is suitable for use alongside nutraceutical and pheromone products, as part of a multi-modal approach to SRDs.

# References

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