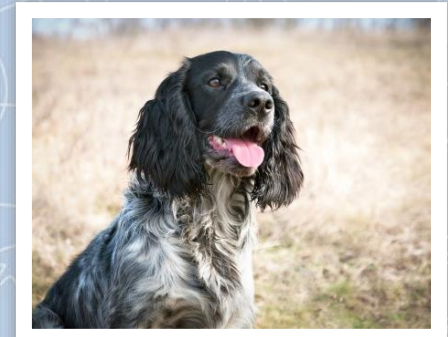
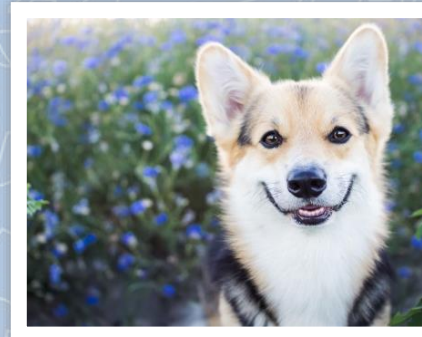
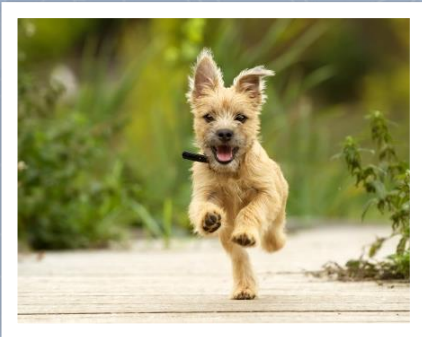


Agria Breed Profiles, version 5 2016-2021

IDHW in Helsinki 13-15 June 2024

*Our way of sharing statistics with those who can
make a difference*



Content

- History and facts about Agria and Agria Breed Profiles
- Cooperation between Agria and the Swedish Kennel Club
- Agria and the Swedish Kennel Club's Research Fund
- How Agria Breed Profiles are used
- Lectures for breed clubs
- More facts about the profiles
- Veterinary care profile Border Terrier 2016-2021
- Summary

Agria history

- Agria, founded in 1890, is one of the largest and oldest pet insurance companies in the world
- November 1923 Agria insures the first dog
- 1930 Agria donates SEK 0.5 million for the construction and operation of a new training center for veterinarians
- 2005 Agria establishes itself in Norway and is now present in eight countries
- 2014 Agria is one of the founders of IPFD
- Agria has almost 40% of the dog insurance market in Sweden

History of Agria Breed Profiles (ABP)

- Veterinarians and epidemiologists Brenda Bonnett and Agneta Egenvall started work on Agria Breed Profiles in the mid-1990s using Agria's extensive and unique injury database.
- The goal was and is to provide a basis for the Swedish breed clubs' health work
- So far 5 versions; 1995-2002, 1995-2006, 2006-2011, 2011-2016 and 2016-2021
- A large number of scientific articles are based on data from Agria, in addition to dogs and cats also horses
- Agria Breed Profiles is financed by funds from Agria & the Swedish Kennel Club's research fund

Agria and the Swedish Kennel Club's Research Fund 2009-2023

Research projects

- 200 research projects have been approved with a total amount of SEK 77.5 million
- Veterinary medicine projects in the first place
- Animal-human relations projects are increasing - close to 60% of the amount granted in 2023
- Projects implemented in Sweden, Norway, Denmark, Finland and Germany

Development initiatives - total SEK 23.6 million

- Update of Agria Breed Profiles Dog
- Development of Agria Breed Profiles Cat
- Collaborative project IPFD
- Funding of PhD students, epidemiology of knee joint injuries and dog weight and its impact on health and welfare
- Technical development of the Swedish University of Agricultural Sciences Biobank and more
- In several projects, Agrias injury statistics have been an important basic data

Facts about Agria Breed Profiles

- Population-based statistics - we follow the population and count all insured animals regardless of whether they get sick/injured or die
- Latest Agria Breed Profiles, version 5, refers to statistics between the years 2016-2021
- Only dogs insured by Agria in Sweden
- The material includes just over 678,000 unique dog individuals
- Swedish and English
- 178 veterinary care profiles and 52 life profiles

Facts about Agria Breed Profiles

- Distributed by the Swedish Kennel Club and Agria Breeders Club

News version 5

- Most common reasons for vet visits or dog deaths - two new charts broken down by gender.
- We present two of the most common so-called designer breeds, Labradoodle and Cockerpoo
- A few more breeds have been given their own profiles based on coat type or variant

Cooperation between Agria and the Swedish Kennel Club (SKK)

- Breed specific breeding strategy (RAS) are action plans for breeding within a specific breed.
- RAS describe both problems and strengths that may exist within the breed and contain the breeding recommendations agreed by the breed club members.
- RAS is revised regularly and adopted by the Swedish Kennel Club

The breed clubs must solve the puzzle

In addition to the Agria Breed Profiles, there are other pieces of the puzzle for breed clubs to work with

- The breed's possible health problems published by other sources - nationally and internationally
- Knowledge in the breed club and among experienced breeders
- Surveys
- Breeding data
- DNA tests
- Social media
- Conferences
- Statistics from other insurance companies
- Veterinarians active in the breed
- Research projects

Do the breeders' clubs use Agria Breed Profiles?

- In connection with the revision of RAS, Agria Breed Profiles will be an important basis for seeing how the breed's health or ill health has developed
- Many clubs find it difficult to understand Agria Breed Profiles and this in turn leads to the material perhaps not being used or the club drawing the wrong conclusions
- Agria Breed Profiles is since 2021 an important part of the SKK's training programme for breeding officials, which has led to more people learning how to read the material and wanting to have lectures for their members
- To date, about 60 clubs/organisations have had a lecture (version 4, 2020 - 2023 and version 5, 2023-2024, the vast majority in the form of a webinar

My way to help the breeders' clubs

- Webinars are the best form - everyone sees, and hears, and you can live anywhere
- First, a 'General part' that provides background and explains different concepts in the material
- Then a review of the veterinary care profile, hopefully making the different concepts understandable in context
- Arrows in different colours, hearts and stars to structure the material and make it easier to show, for example, the number of specific causes linked to a body system or to clarify how to think about number versus relative risk
- Concludes with questions and possible discussion

Our dogs

Some reasons for veterinary visits are common in most dog breeds

However, if there is a higher risk than for All Breeds, it may be related to the breed or use of the dog - for example, hunting dogs where we generally see more injury diagnoses as a reason for veterinary visits

The 5 most common reasons why our dogs go to the vet (2016-2021)

Vomiting and diarrhoea

Locomotor pain symptoms

Teeth

Skin tumours

Ear infections

Structure and interpretation

- The statistics are structured with simple comparisons:
- Breed compared to All Breeds - note that Breed is also included in the All-Breeds group

Multilevel statistics

- General orientation - charts 1, 2
- General causes - charts 3, 4
- Specific causes - charts 5, 6, 7, 8
- Different parts of the locomotor system - charts 9, 10

Structure and interpretation

General causes = overall clustering categories containing several specific causes. Example endocrine, locomotor

Specific causes = a specific diagnosis without sub-diagnoses.

Example cushings, pain symptoms back

An animal is recorded only once per specific diagnostic category but may be included in several diagnostic categories

For the diagnosis to be displayed, at least 8 animals must have had the diagnosis

Concept

- Year-at-Risk (YAR) is the time each dog has been insured during the period 2016-2021. A dog insured for one year gives 1.0 YAR, a dog insured for six months gives 0.5 YAR. All dogs insured during the period are included regardless of the time they have been insured.
- Morbidity/mortality between 2016-2021 shows how many registered veterinary events/deaths the breed has per 10,000 YAR.
- Relative Risk describes the degree of increased or decreased risk of events for individuals in the breed compared to All Breeds.
- A Relative Risk of 2 means that the risk in the breed is twice as high compared to All Breeds.
- A Relative Risk less than 1 means that the breed has a lower risk compared to All Breeds.

To be noted

- Veterinary care - the statistics only show claims where the animal owner has received compensation
- Life - the statistics only show deaths where Agria has paid out the life insurance
- Life - the statistics only show what happens while the dog has life insurance, most breeds lose the life insurance when it turns 10 years old. What happens to dogs without life insurance or to the older dog is therefore not shown in these statistics.
- Insurance conditions and rules - the breed may look 'better/healthier' than it really is. Examples of exceptions in some breeds - caesarean section, teeth and airways

Border Terrier

Agria Breed Profiles

Veterinary Care 2016-2021



Agria Insurance Data – Breed Statistics

Dog: 2016-2021

Border Terrier

Breed statistics are based on data from Agria Djurförsäkring, Sweden. The primary goal of Breed Profiles is to provide a basis for Swedish breed clubs in their work with health issues within their breeds. The first Breed Profiles were provided to the Swedish Kennel Club and various breed clubs in 2002 and covered the years 1995-2002. Since then, Agria has presented three updates; 1995-2006 (about 100 breeds), 2006-2011 (about 130 breeds) and 2011-2016 (about 180 breeds). This version covers the years 2016-2021 (about 180 breeds) and is, like the previous version, available in Swedish and English.

Efforts has been taken to calculate statistical measures using scientifically accepted methods. However, the data are influenced by insurance terms and conditions, the date of subscription, the dog owner's decision regarding veterinary visits as well as the choice of treatment and the approach to diagnosis and treatment by the veterinarian. These factors will therefore vary over time.

In order to reduce the risk of misinterpretation, the data are presented mainly in the form of a comparison between each breed and the All Breeds group. It is assumed that changes and influences will be similar between breeds. As this is the fifth presentation of breed statistics for dogs and more are possible, we believe that this form of comparison is the most appropriate to prevent misinterpretation or over-interpretation of the statistics.

Breed Profiles 2016-2021 is presented in the same format as the previous update 2011-2016. The key point is that the data is relatively constant when calculating the prevalence of a disease. The reader will want to know whether the disease incidence of their own breed is increasing or decreasing over time. Due to continuous changes in the database and insurance conditions, only comparisons between the breed frequency and the All Breeds group can be made. The relative risk compared to All Breeds in the previous updates (1995-2006, 2006-2011, 2011-2016) can be compared to the relative risk in this version (2016-2021). Differences between Breeds and All Breeds may be caused by changes in disease frequency in the breed, in All Breeds, or both. However, clear changes in a breed's risk are worth noting as the entire data includes more than 1.58 million Year-under-Risk.

Background and interpretation

Rates are calculated on dog-Year-at-Risk (YAR), which refers to the time each dog was insured during the period 2016-2021. A dog insured for one year generates 1.0 YAR, a dog insured for six months generates 0.5 YAR. Overall rates are expressed as the number of dogs experiencing an event (veterinary care or death) per 10,000 YAR. A dog that has one or more events within a diagnostic category is counted only once per category but is counted separately for each new diagnostic category. Categories with less than 8 claimed dogs are not presented. A breed may contain several coat types or size variants.

The rates used to measure life and veterinary care events are Mortality and Morbidity.

Mortality: Number of deaths per 10,000 YAR.

Morbidity: Number of animals that had one or more Veterinary Care Events (VCEs) per 10,000 YAR.

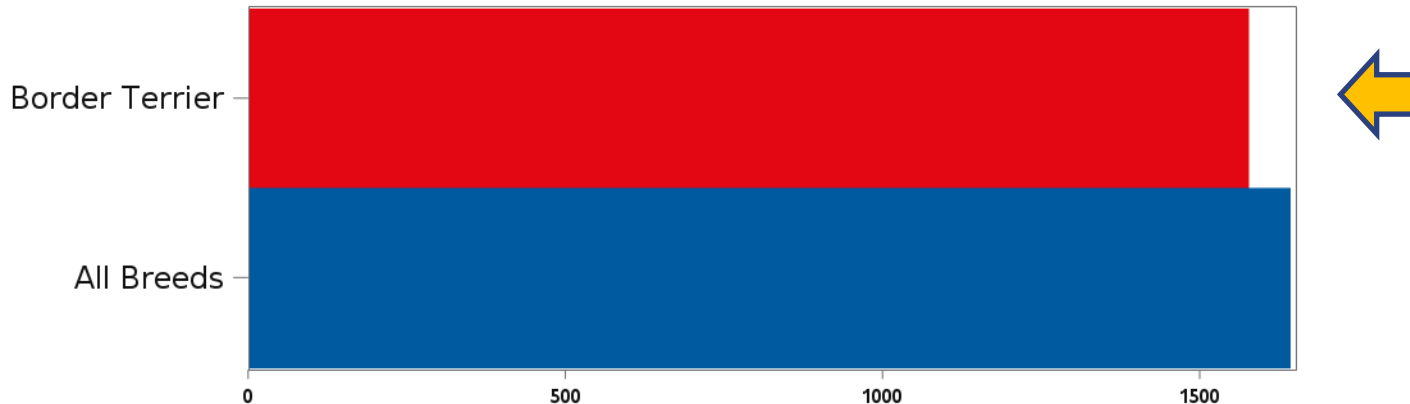
To interpret the horizontal bar charts 1, 2, 3, 5, 7, 8, 9 where the breed is compared to All Breeds, the following applies: The further the bar extends to the right, the more common is the diagnosis (higher frequency). If the bar for the individual breed is about the same length as the bar for All Breeds, the condition is as common for that breed as for All Breeds. For conditions where the breed's bar is longer than for All Breeds, the breed has an increased risk compared to All Breeds. If the breed bar is shorter, the breed has a lower risk of the condition compared to All Breeds. Charts 4, 6 and 10 express the relative risk in numbers for the individual breed compared to All Breeds. Relative risk, see interpretation in chart 4.

Note: No assessment of statistical significance has been made, which means that we present the statistics without interpreting why they look the way they do.

Note: There is no upper age limit for how long a dog can be insured with a veterinary care insurance, but the number of insured dogs decreases with increasing age. Life insurance automatically expires at a certain age, depending on the breed. Restrictions in the terms and conditions of the insurance may affect the statistics, for example behavioral problems or preventive measures are not covered by the insurance and therefore do not appear in the statistics. Veterinary Care Events (Morbidity) are those visits to the veterinarian where the cost exceeded the fixed excess and Agria has handled a claim and reimbursed the costs. Deaths (Mortality) generally includes events where a veterinarian has assigned the cause of death, but in some acute cases the owner and a witness has confirmed in writing that the dog has died.

Readers must balance all the presented information in Agria Breed Profiles, together with what is already known about the health issues in the breed, published by other sources. This is particularly important for breeds with smaller numbers of insured animals.

Chart 1: Total Morbidity (per 10,000 YAR) – Border Terrier and All Breeds 2016-2021



Years-at-Risk 2016-2021 (whole period)

Border Terrier: 15,000 < 25,000

All Breeds: 1.58 million



Morbidity between 2016-2021

Border Terrier: 1,576 per 10,000 YAR

All Breeds: 1,641 per 10,000 YAR



Interpretation: Use the data on this page to get an overview of the health of the breed compared to All Breeds. For example, is the Morbidity lower, higher or approximately the same as for All Breeds?

Reminder: Mortality expresses the rate of death and Morbidity expresses the rate of one or more VCEs.

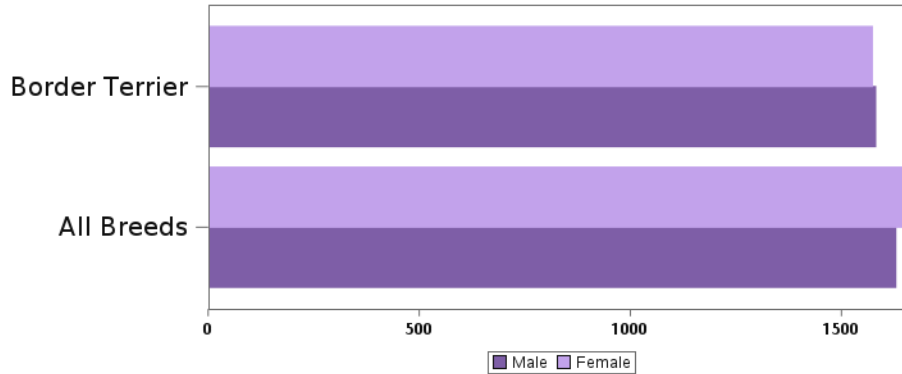
Relative Risk Morbidity of Border Terrier compared to All Breeds: 0.96



Interpretation: Relative Risk represents the degree of increased or decreased risk of events for individuals in the breed compared to All Breeds.

For example a Relative Risk of 2 means that the risk in the breed is twice as high than for All Breeds. A Relative Risk less than 1 means that individuals in the breed have a lower risk compared to All Breeds.

Chart 2: Total Morbidity (per 10,000 YAR) by sex – Border Terrier and All Breeds 2016-2021



Interpretation: Compare between genders within the breed. Also compare males and females of the breed to the genders in All Breeds. If there are differences, consider general and specific causes of disease (chart 3-10) for explanations.

Note: Information on whether animals were spayed/neutered is not available.



Median Age (years) at first VCE



Border Terrier: 7.5

All Breeds: 5.8

Definition: Morbidity - for 50 % of animals their first VCE occurred before this age and 50 % after.

Interpretation: Compare the breed to All Breeds.

Note: For Morbidity (VCE's) this value will be somewhat overestimated as some animals may have experienced a similar event before this data observation period started.

Median Age (years) of the insured animals



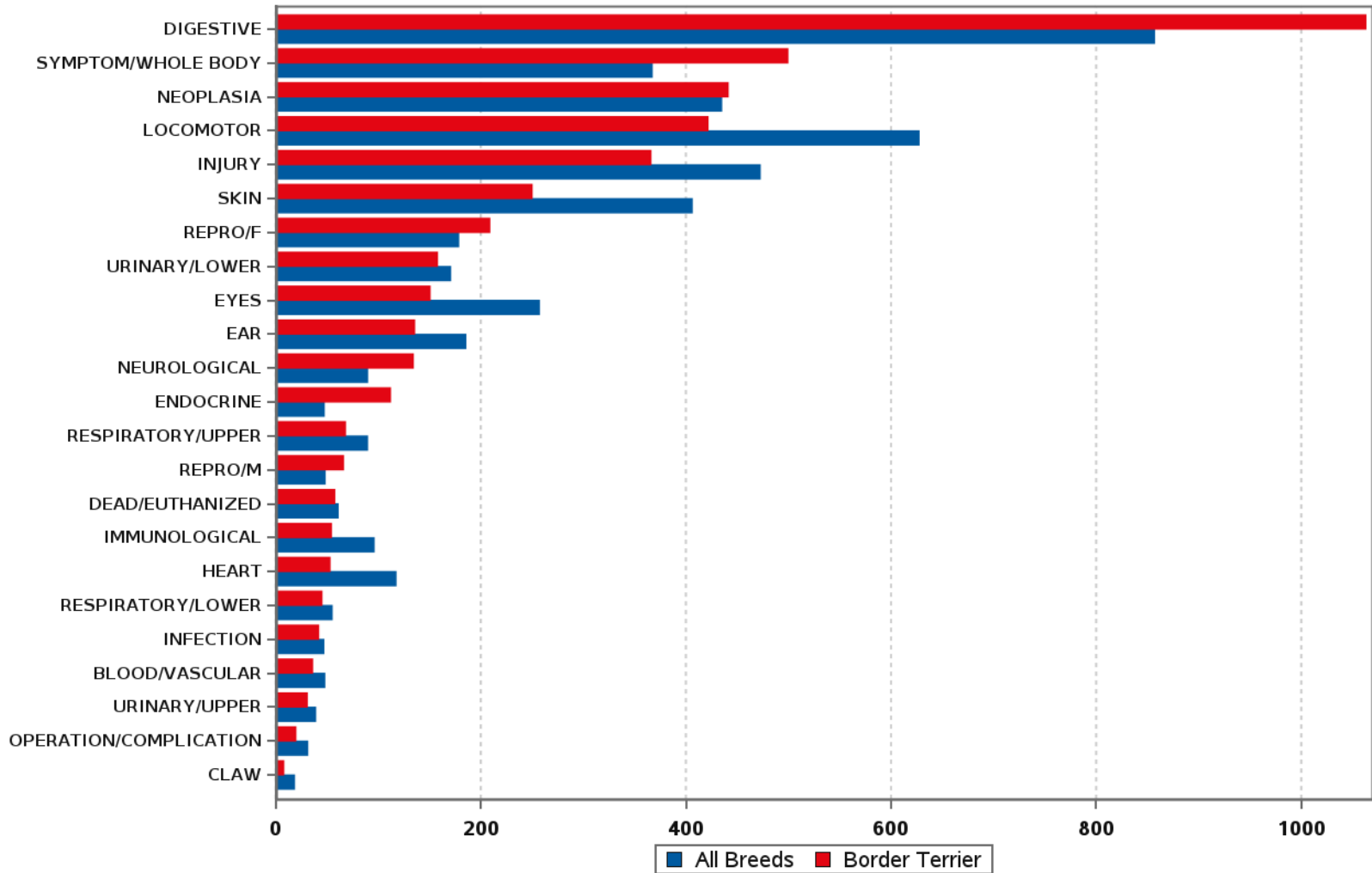
Border Terrier: 7.7

All Breeds: 5.8

Definition: 50 % of the animals had an age that was lower and 50 % had an age that was higher than the value above.

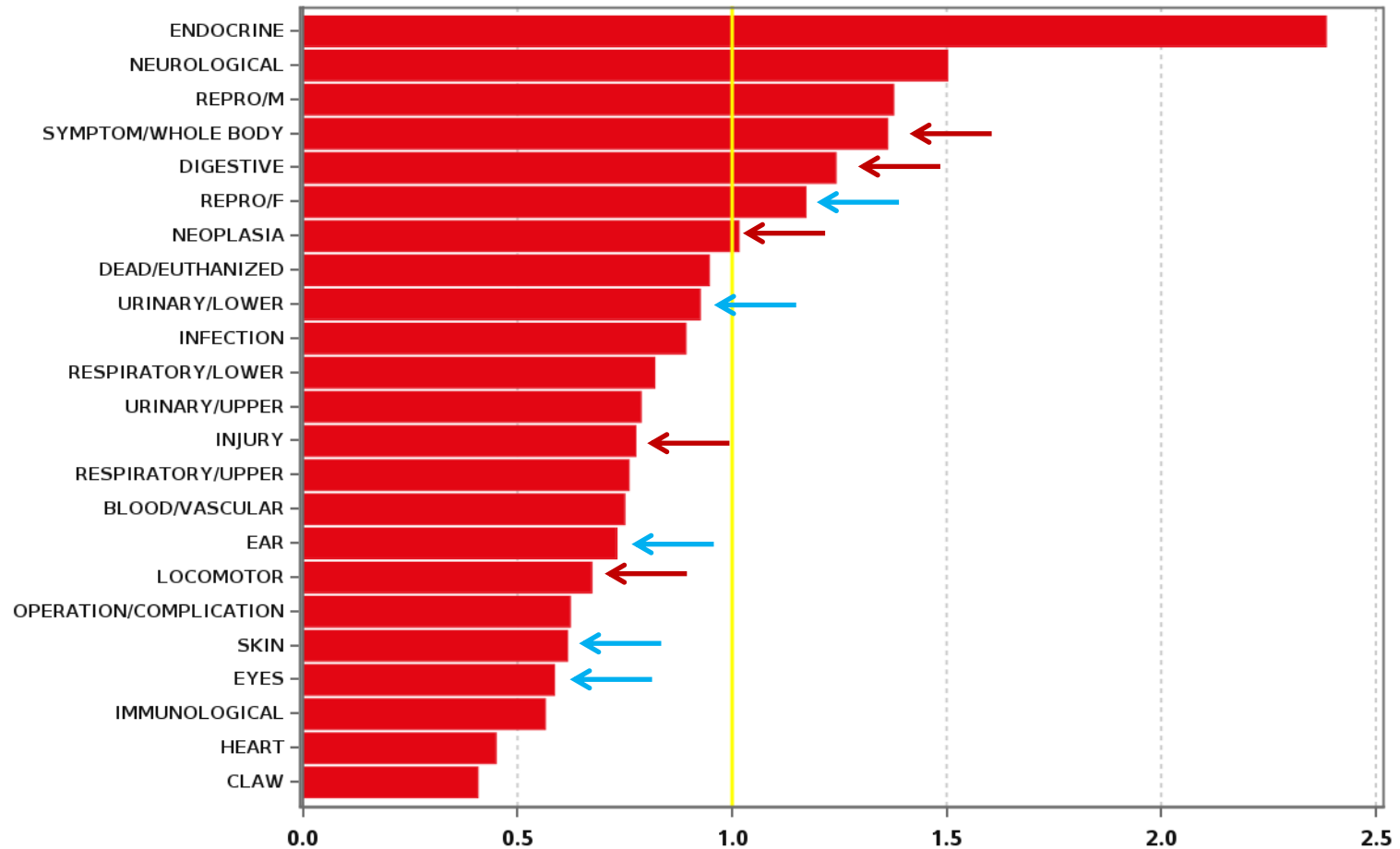
Interpretation: Is the insured population of this breed similar in age, younger or older than All Breed?

**Chart 3: Morbidity (per 10,000 YAR) for General Causes (Level 3)
 – Border Terrier and All Breeds 2016-2021**



Reminder: Categories are shown only if at least 8 animals had the diagnosis.

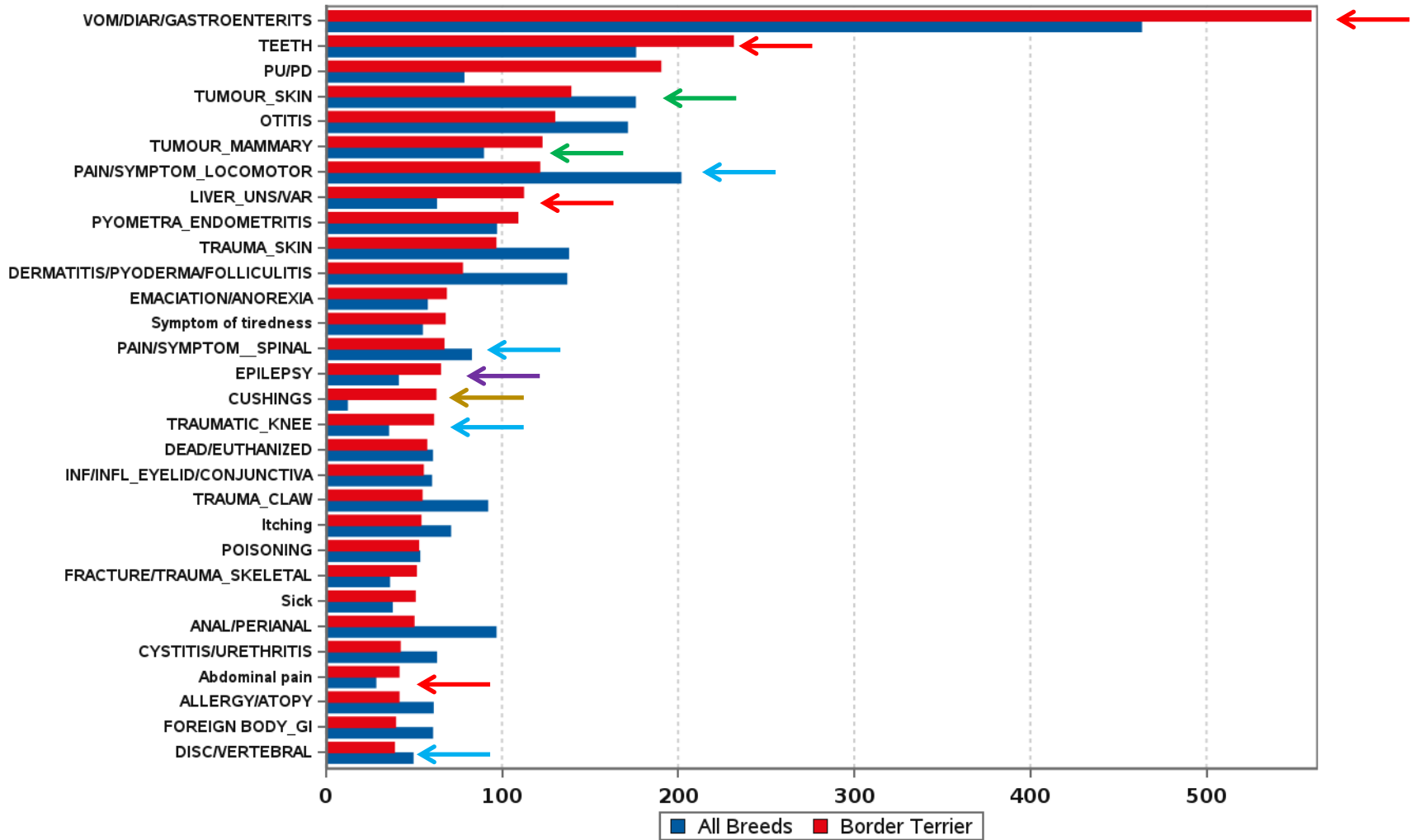
**Chart 4: Relative Risk Morbidity for General Causes (Level 3)
 – Border Terrier compared to All Breeds 2016-2021**



Interpretation: The yellow line is the baseline risk for All Breeds; For those conditions where the red bar goes to the right of the yellow line, the breed has an increased risk compared to All Breeds. If the bar extends to '2' it means that the risk in the breed is approximately 2 times higher than for All Breeds.

Reminder: Categories are shown only if at least 8 animals had the diagnosis.

**Chart 5: Morbidity (per 10,000 YAR) for Specific Causes (Level 1)
 – Border Terrier and All Breeds 2016-2021**



Reminder: Categories are shown only if at least 8 animals had the diagnosis.

What diagnosis are seen where?

Both these groups are included in the data for Figure 6 if there are more than 30 diagnosis.



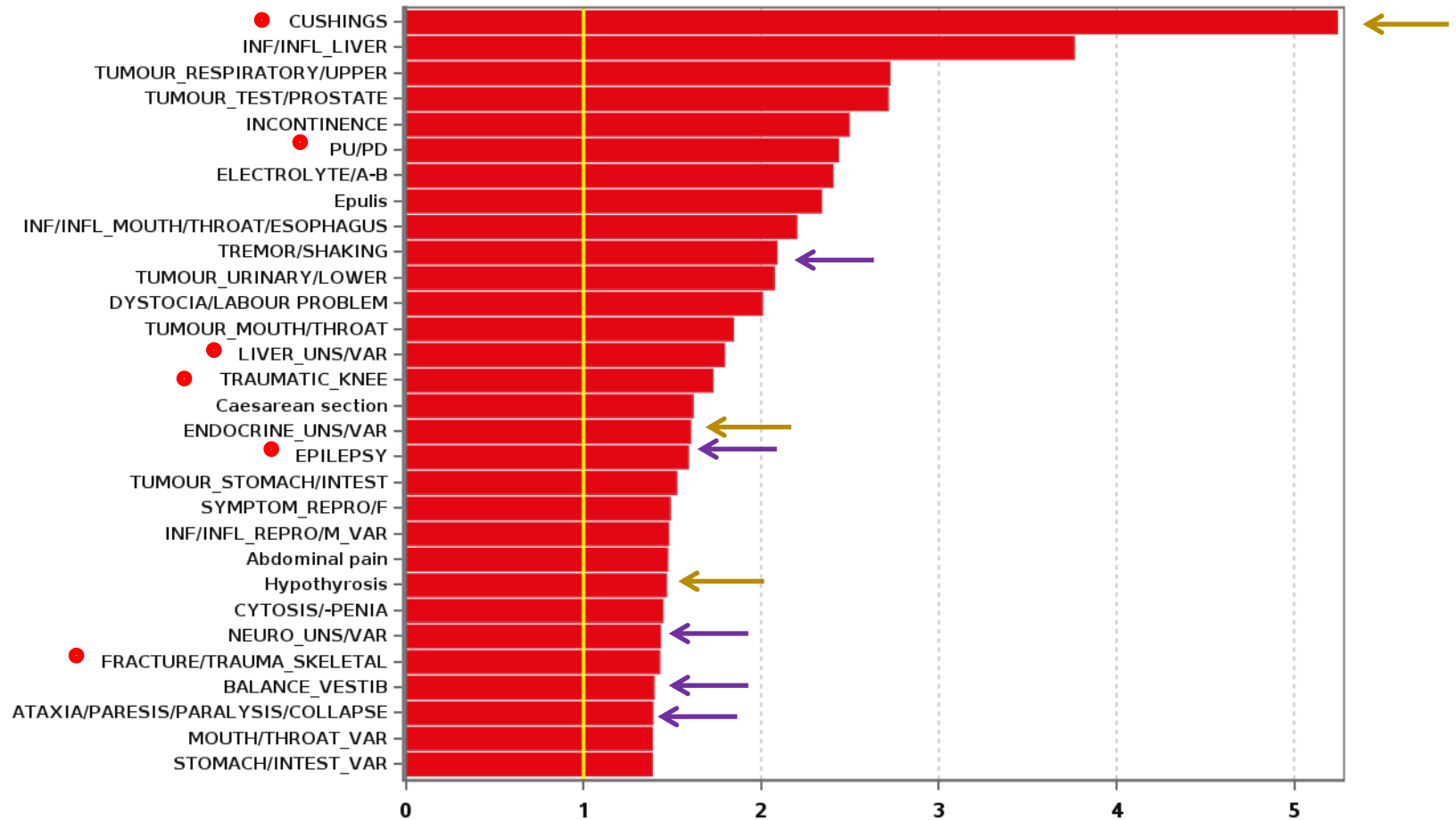
Here are the specific diagnosis where fewer than 8 animals were diagnosed.



Here are the specific diagnosis where at least 8 animals have been diagnosed but not so many that the diagnosis has reached 30 in the top list.

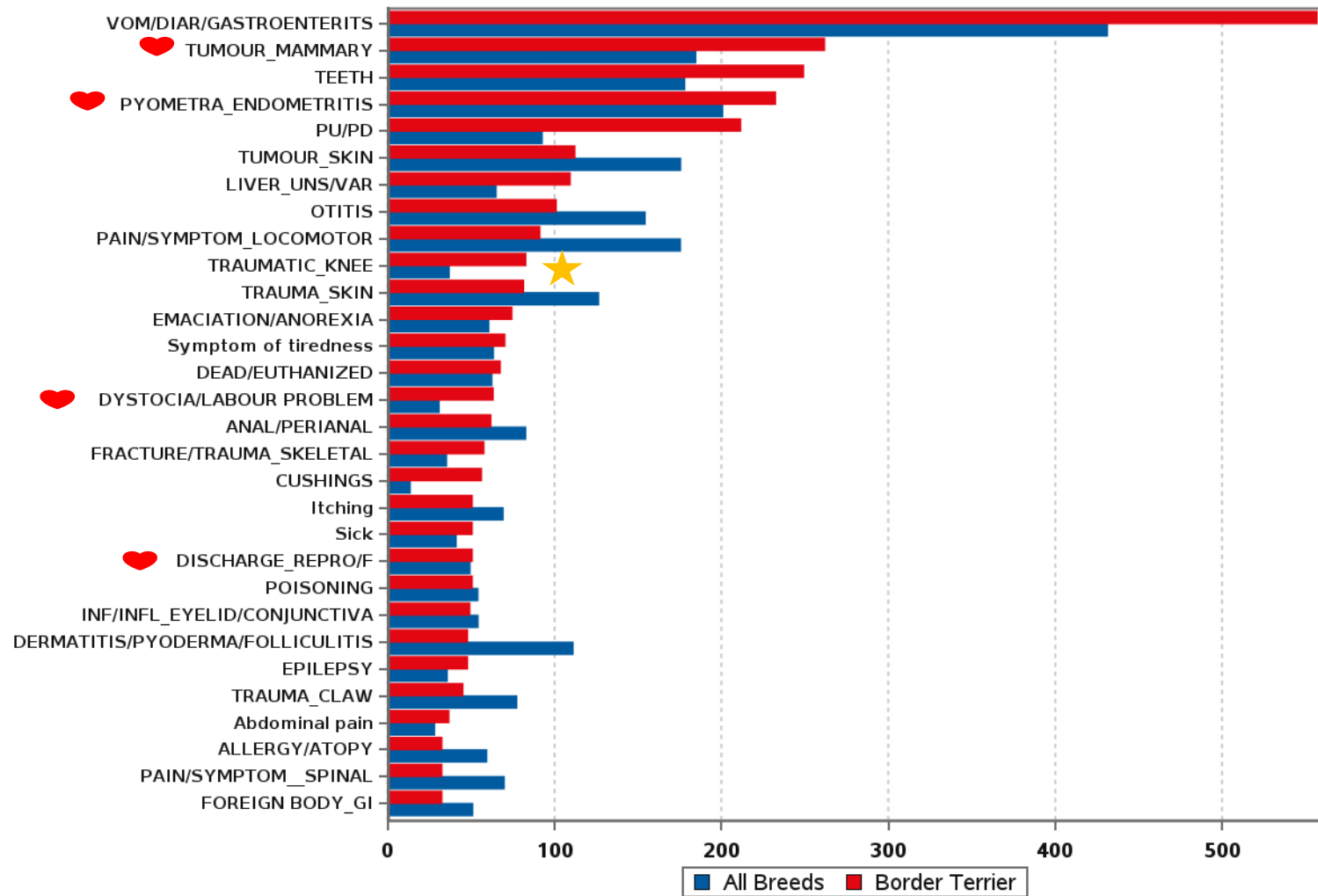
30 in the top list, the 30 largest specific diagnosis. May be fewer if there are not so many diagnosis. Shown in Figures 5, 7 and 8

**Chart 6: Relative Risk Morbidity for Specific Causes (Level 1)
 – Border Terrier compared to All Breeds 2016-2021**



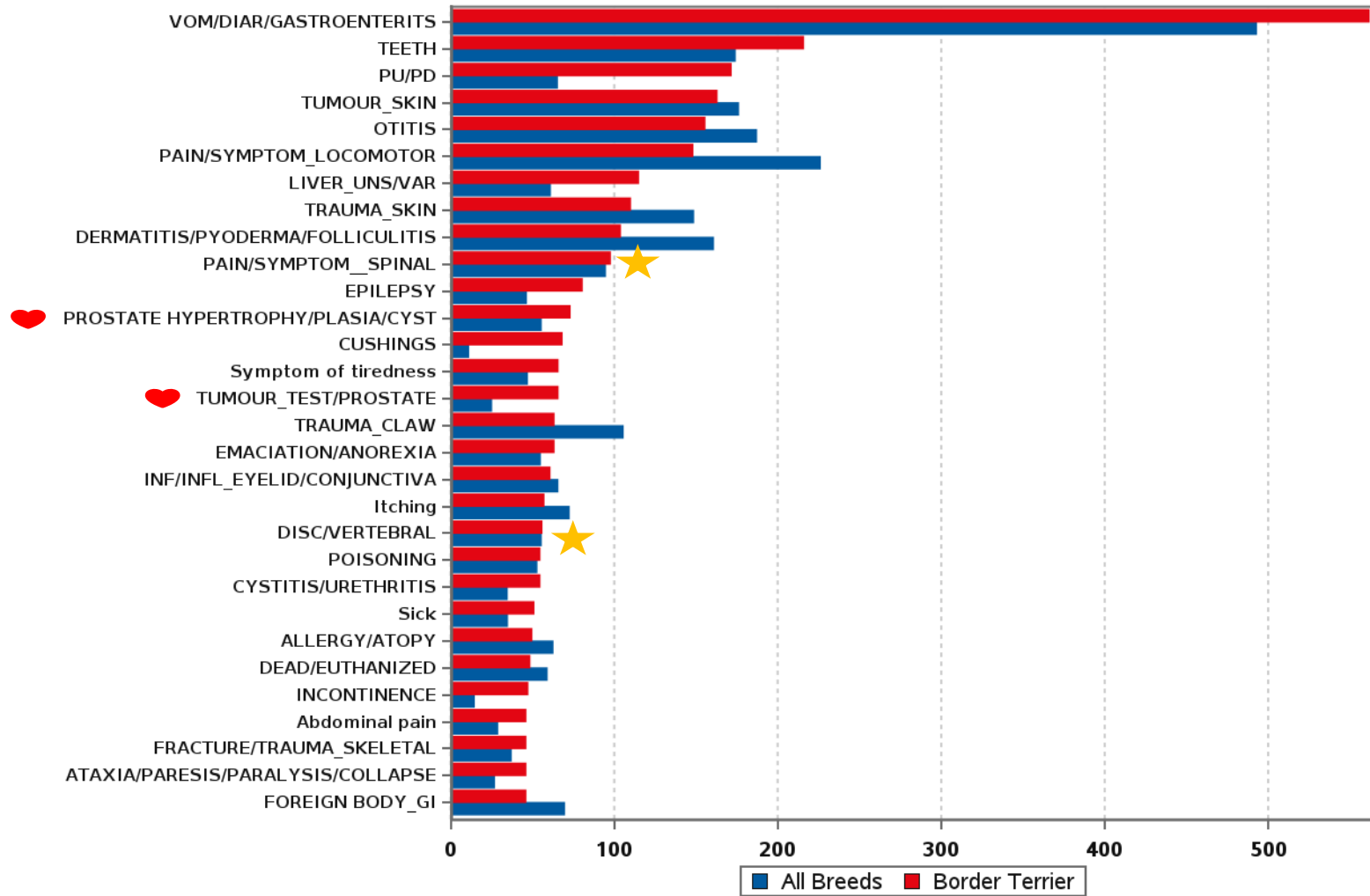
Note: Rare diagnoses with high Relative Risk may appear in this chart. Therefore, compare with the previous chart to determine both how common the diagnosis is and its Relative Risk. If the diagnosis is included in both charts 5 and 6, it is particularly important to look at the diagnosis more closely. Categories are only shown if at least 8 animals had the diagnosis.

**Chart 7: Morbidity (per 10,000 YAR) for Specific Causes (Level 1) - FEMALE ONLY
- Border Terrier 2016-2021**



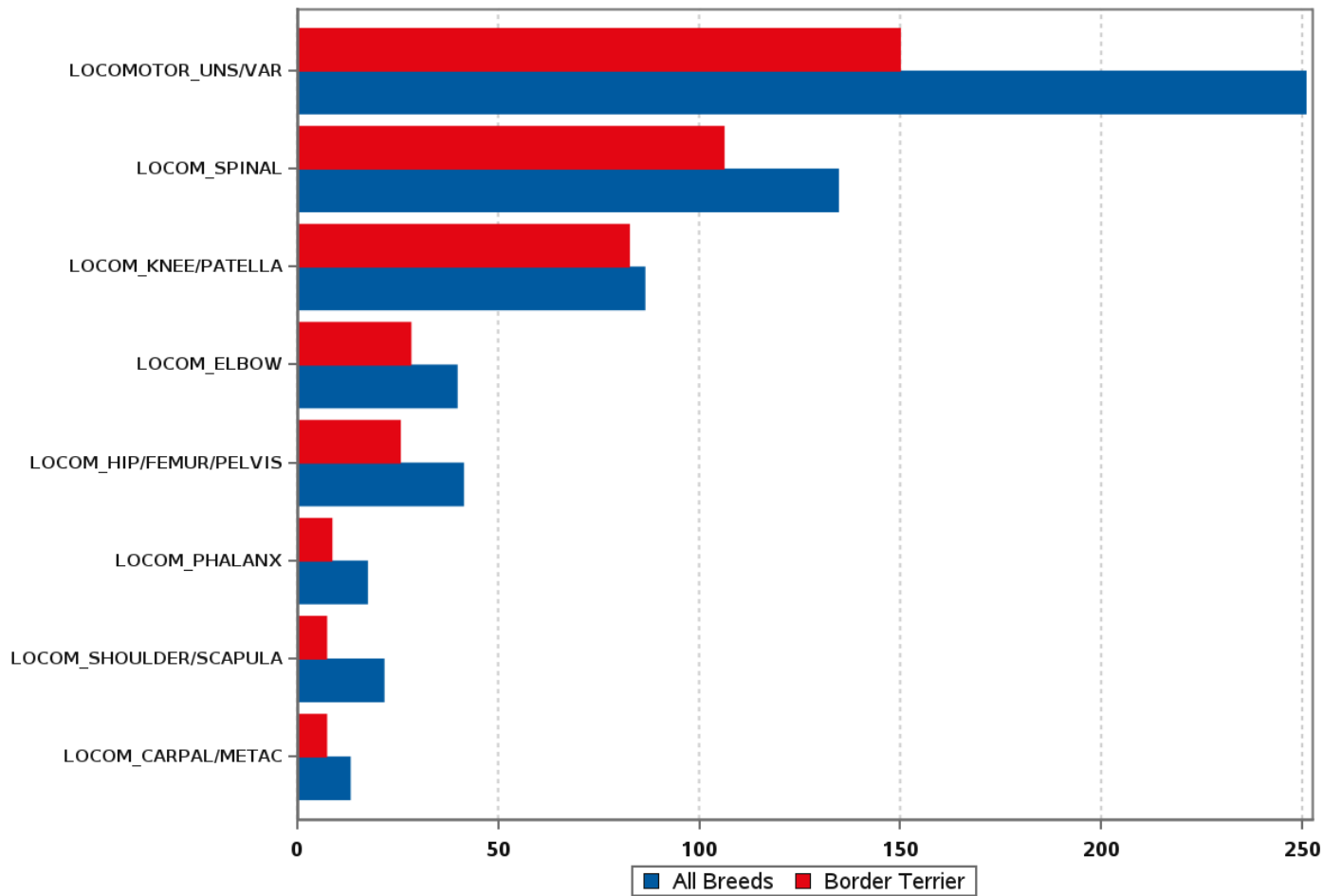
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

**Chart 8: Morbidity (per 10,000 YAR) for Specific Causes (Level 1) - MALE ONLY
- Border Terrier 2016-2021**



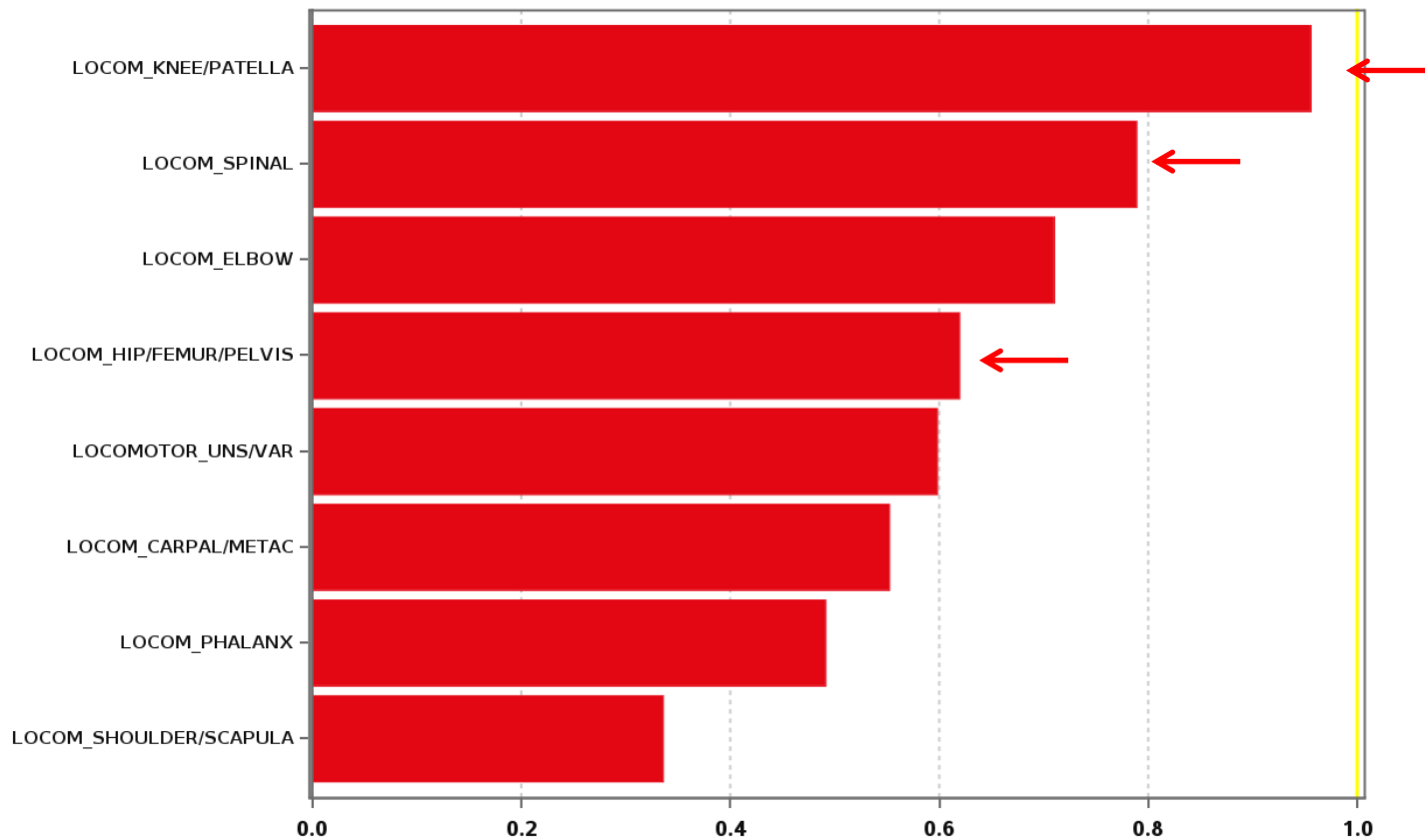
Reminder: Categories are shown only if at least 8 animals had the diagnosis.

**Chart 9: Morbidity (per 10,000 YAR) of Locomotor Problems
– Border Terrier and All Breeds 2016-2021**



Note: 'UNNS/VAR' means that the veterinarian did not specify a specific location or diagnosis or that there were symptoms from two locations or more. Categories are shown only if at least 8 animals had the diagnosis.

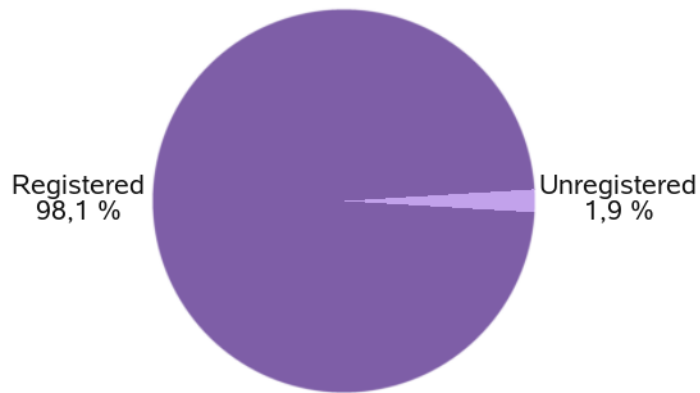
**Chart 10: Relative Risk Morbidity for Locomotor Problems
– Border Terrier compared to All Breeds 2016-2021**



Interpretation: As for chart 4.

Reminder: Categories are shown only if at least 8 animals had the diagnosis.

Chart 11: Percent (Years-at-Risk) of Border Terrier with a registration number from kennel club



Median Age (year) of the insured animals

Median age (years) Registered: 7.6

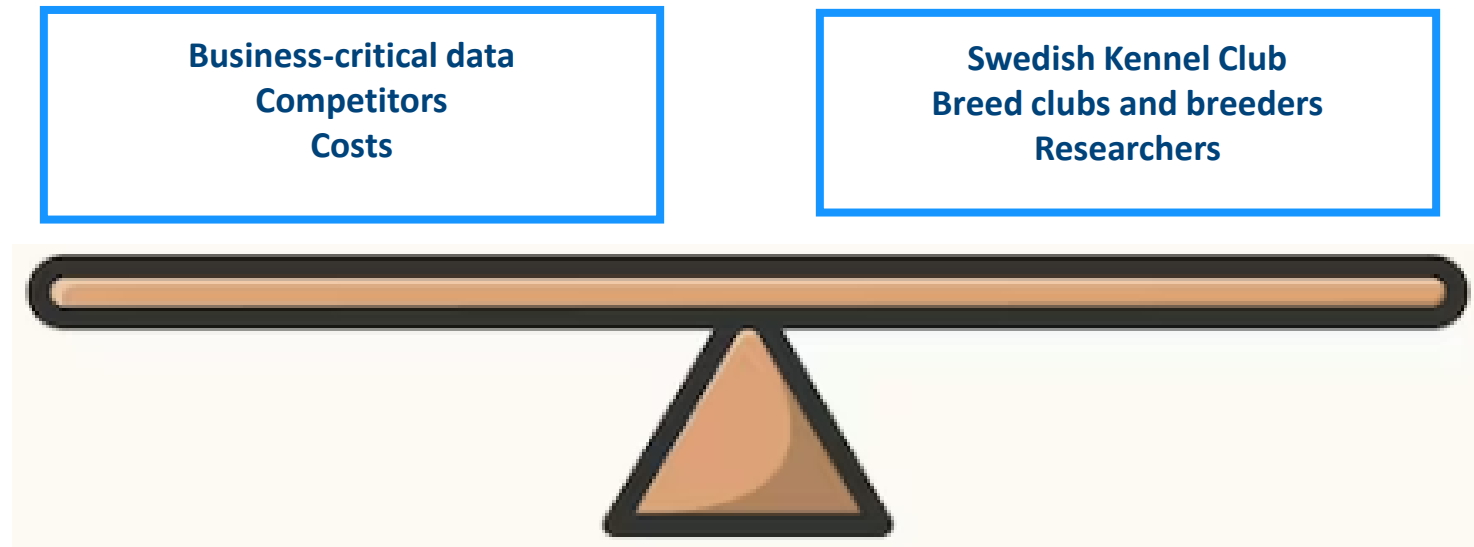
Median age (years) Unregistered: 9.5

Chart 12: Total Morbidity for Registered and Unregistered - Border Terrier 2016-2021

Note! Chart not presented for this breed as there are too few unregistered dogs for valid data.

Interpretation: This chart compares the rate of events (Morbidity) between animals with a registration number and those without. Differences may be influenced partly by different age distribution in the two groups (see above).

Commercial dilemma?



Summary Agria Breed Profiles

- A fantastic and important material
- Underutilised by breed clubs and breeders
- New charts that can show clear differences between how the different sexes are affected
- Ongoing discussion at Agria about the appropriateness of publishing the statistics, including not ready for publication on Dogwellnet.com

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