

WHAT DISORDERS DO UK PEDIGREE DOGS AND CATS REALLY ACQUIRE?

ALTHOUGH it has long been suspected that pedigree dog and cat breeding programmes were progressively creating a range of health problems for our modern pets (McGreevy and Nicholas, 1999), it was in August 2008 that this subject truly hit the media headlines.

The BBC aired a 60-minute documentary, entitled *Pedigree Dogs Exposed*, which continues to affect the pedigree dog world today. The programme included footage of a cavalier King Charles spaniel with syringomyelia apparently writhing in agony and a pug with brachycephalic airway disease appearing to gasp for breath.

The programme emphasised an association between some pedigree breed standards and poor animal welfare. For instance, the dermoid sinus condition in the Rhodesian ridgeback was highlighted.

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discuss the merits of the VECAR disease surveillance system in the context of pedigree dogs – and how you can become involved

Dermoid sinus is relatively common in ridged dogs, but rare in unridged breed members (Hillbertz and Andersson, 2006).

The programme expressed

the belief that the common practice of inbreeding (also called linebreeding) to “fix” certain breed attributes resulted in reduced genetic diversity in the breeds and an increase in inherited disease expression.

For one of the authors (Dan O'Neill), who was running his own small animal practice in Kent at the time, the subsequent weeks and months saw a remarkable interest in this topic from the pet-owning public. It

was evident that inherited disease was perceived as a major welfare issue by the public, but it was not clear what steps the veterinary profession was taking to protect patients – or even if the information existed to define the scope of the problem.

Do we really have prevalence levels for disorders between breeds (Figures 1 and 2)? However, what was without doubt was that clients expected their veterinary surgeons and practices to take the matter seriously and get involved in finding a solution.

Indeed, this growing welfare issue was one of the main drivers for Dan O'Neill to forgo general practice and return to the academic world to undertake a PhD at the RVC into the epidemiology of acquired and inherited disorders in cats and dogs. This article offers you the opportunity to contribute to a better future for breed welfare, but without having to make such a drastic life choice.

In the aftermath of the BBC broadcast, three major reports were commissioned independently by the RSPCA, the Dogs Trust/Kennel Club and the Associate Parliamentary Group



Figure 1. How do the conditions affecting labradoodles relate to the conditions affecting the parent breeds?

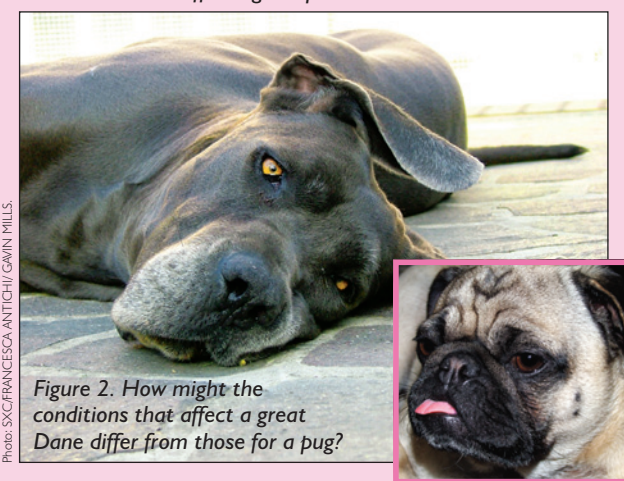


Figure 2. How might the conditions that affect a great Dane differ from those for a pug?

TABLE 1. VECAR animal surveillance: clinical benefits

Feedback reports from VECAR on practice caseload, including:

- trends in species, presenting complaints and diagnoses seen;
- medications dispensed;
- frequency of specific diseases observed; and
- breed-related disorders diagnosed.

Disease-specific reports – relevant short communications. For example, previous subjects of interest include:

- an overview of canine breed-related disease;
- eye disease in dogs;
- vaccine reactions;
- feline urinary tract disease; and
- canine musculoskeletal disease.

Access to expert CPD sessions

Exclusive access to the members' only area on the project's website, which includes:

- podcasts of CPD meetings; and
- stored reports.

Aid to clinical audit, as a result of:

- a general overview of trends in species, presenting complaints and diagnoses seen; and
- facilitating the process and outcome audits of specific clinical conditions and care.

Aid in conducting a clinical research project using your own practice database

- Ethical approval.
- Defining the research question.
- Data collation and analysis.
- Preparing the manuscript.

Facilitate certificate and diploma case report production

TABLE 2. VECAR animal surveillance: management benefits

Increase the reputation of the practice as a centre of excellence and caring

- Display a certificate of participation and VECAR animal surveillance leaflets
- Links between the VECAR animal surveillance and your practice website

Track trends in practice caseload over time

- Facilitate staffing and equipment procurement decisions
- Identify and reverse creeping negative slides.

Benchmarking of clinical data with other practices

- Increase employee job satisfaction
- Fulfilment from contributing to a worthwhile project

Good medicine is good business

- Recording a formal provisional diagnosis promotes confidence by clients
- Firmer diagnoses promote rational and standardised treatment plans

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for Animal Welfare (APGAW). These reports examined the influence of pedigree dog breeding policies on the health and welfare of pedigree dogs.

Each of these reports, *Pedigree Dog Breeding In The UK: A Major Welfare Concern?* (Rooney and Sargan, 2008), *Independent Inquiry into Dog Breeding* (Bateson, 2010) and *A Healthier Future For Pedigree Dogs* (APGAW, 2009), concluded that some current pedigree breeding practices were detrimental to the welfare of pedigree dogs, and made a series of recommendations for improving pedigree dog health and welfare.

A theme common to each of these detailed reports was the current dearth of data on the specific types and levels of

disorders affecting pure and crossbred dogs, and the consequent limitations for evidence-based solutions to this hugely important problem.

Establishing the true prevalence of inherited disease using anonymised veterinary diagnoses was unanimously identified as a key step towards the long-term improvement in pedigree pets' health and welfare. All three reports recommended founding a national database to amass and collate reliable large-scale data on disorders in domestic dogs.

Indeed, although the independent authors of the RSPCA-commissioned report proposed 36 different recommendations to improve the welfare of pedigree dogs, the highest priority recommendation was to

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mendation was considered to be “the systematic collection of data on inherited diseases suffered by dogs”.

One solution

In direct response to these recommendations, an RVC and University of Sydney collaboration began a three-year PhD study that aims to provide robust data on disease levels in pedigree dogs and cats, and is funded by the RSPCA.

In conjunction with leading providers of veterinary electronic practice management systems (PMS) and as many willing partner veterinary practices as possible across the UK, this project aims to capture the clinical experience of small animal practitioners by collating and analysing their electronic patient records. Epidemiological analyses will then generate reliable up-to-date and ongoing information on the levels and risk factors for inherited and acquired disorders in dogs and

cats. Needless to say, this hugely ambitious project relies totally on the cooperation of the practising arm of the veterinary profession. You now have the opportunity to contribute to the future of veterinary science and pedigree pet welfare by collaborating with this research by sharing your clinical database. Don't just read about science – become part of science.

The project

In 2007, the RVC established the Veterinary Electronic Animal Record (VEctAR) animal surveillance programme for health surveillance in UK companion animals. VEctAR aims to capture first-opinion clinical data via electronic patient records held in practices' PMS, enabling the completion of regional demographic assessments, disease prevalence studies and risk factor analysis (VEctAR, 2010).

The project was piloted in collaboration with a PMS

provider, RxWorks, in a small sample of practices. Now, the large-scale recruitment of practices across the UK, which use any one from a wide range of PMS, is being undertaken.

To date, much of the limited current prevalence data have been derived from referral caseloads, which may be poorly representative of true overall national levels. The central aim of this project is to collect robust data from as broad a cross-section of practice types, with as diverse geographical locations as possible, thereby ensuring the results will be truly representative of the UK dog and cat population.

The process

An invitation is now extended to all UK veterinary practices that treat dogs and cats to consider participating in the VEctAR project.

Depending upon their PMS, practices may be able to contribute immediately, but there may be a delay until the PMS system of a particular practice is compatible with RVC requirements.

Following acceptance to participate in VEctAR and contribute to the future direction of veterinary medicine, a standardised list of summary diagnoses (the VeNom codes) will be embedded within the practice's PMS. Indeed, these codes are already present by default in practice PMS, and are likely to become

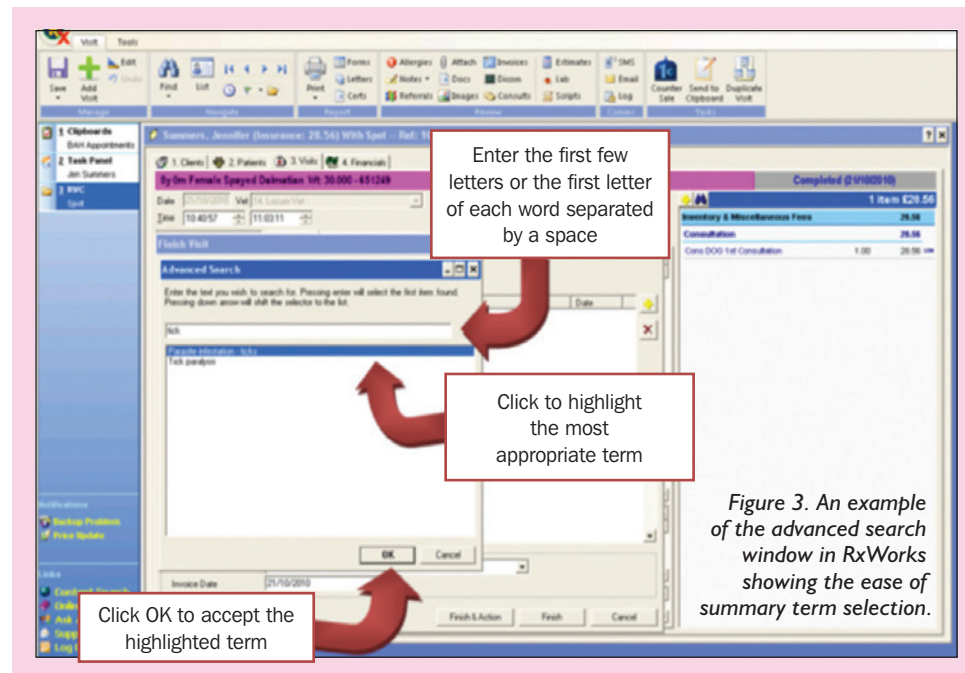


Figure 3. An example of the advanced search window in RxWorks showing the ease of summary term selection.

an industry standard over time.

The objective is to link the clinical data that you already routinely collect with your choice from a list of summary diagnoses with minimal alteration to your current recording methods.

The VeNom codes have been developed by a multi-institution group, the VeNom Coding Group. It consists of veterinary clinical, epidemiological and IT specialists based at the majority of the UK's veterinary schools and aims to promote and standardise veterinary diagnostic nomenclature (The VeNom Coding Group, 2010). The only change to your current procedure is that, at the end of each clinical care episode, an appropriate summary term is selected to best describe the case diagnosis or reason for the visit.

Where the diagnosis is uncertain, a term can be selected from a list of “presenting complaints” instead. The actual full list of terms is extensive, but is hidden in the PMS while working in the patient record.

Choices are made by either typing the first letters of the diagnosis (such as “abs” for terms related to abscess) or the first letters of more than one of the words in a multi-word diagnosis, each separated by a space (such as a “c b a” for cat bite abscess), which will bring up a list of matching or related terms (Figure 3).

The search engine has been designed to recognise synonyms and will re-direct to the official nomenclature. The whole “coding” process takes no more than a few seconds.

Data transfer to the RVC will be periodical and is simple, being uploaded directly to the secure RVC VEctAR animal surveillance

database. Clinical data only are sourced; no owner or financial transaction information is transferred. At no point will client confidentiality or data protection legislation be compromised. Client details are not retained by VEctAR animal surveillance, in accordance with data protection legislation. The data fields shared include signalment (species, breed, age, sex, weight, microchip and colour), clinical history text, treatment, summary diagnosis and geographical location. VEctAR has received ethical approval from the RVC ethics and welfare committee. The RCVS supports the aims of VEctAR. The project fully complies with relevant data protection legislation.

The benefits

Participation offers both clinical (Table 1) and management (Table 2) benefits to your practice. As the project evolves, further applications from participation are likely to accrue.

The existence of data over an extending time period will augment the ability to recognise trends and help forecast future direction in the practice.

The cost

Despite the many benefits to your practice, the cost of participation is zero. The summary terms list will be added to your system by your PMS provider.

Adoption of the changes by staff is simple, involving merely a single extra selection of a diagnosis or presenting complaint at the end of each consultation.

A member of the VEctAR animal surveillance group can visit your practice to explain the project and explore further potential areas of collaboration

that specifically interest your practice team.

What next?

If you are suitably energised by the ideas behind this project and would like to explore it further, we would recommend visiting the VEctAR website (www.rvc.ac.uk/VEctAR), where more detailed information about the project can be found, as well as sample outputs.

To express an interest in principle in joining the growing “VEctARmy” and receive further details, contact Dan O'Neill at daneill@rvc.ac.uk or telephone 07751 057161. With research and practices working in tandem, we can turn today's veterinarians into tomorrow's “vectorinarians” and make the lives of all our patients happier, healthier and longer.

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Gibbens issues cattle tail docking reminder

INSPECTORS from the Animal Health and Veterinary Laboratories Agency (AHVLA) have discovered a small number of cases of cattle with docked tails.

A spokesman for the agency said that the calves had been docked “in the mistaken belief it improved hygiene.”

Tail docking on welfare grounds is illegal in the UK. Surgery to remove part of the tail of cattle must

only be performed by a veterinarian as a therapeutic action and in response to an injury or disease.

Commenting on the issue, chief veterinary officer Nigel Gibbens said: “Tail docking is unnecessary, as there are no discernible benefits for either cattle or humans.

“It has never been traditionally practised in the UK, so we want to remind people about its illegality now to nip it in the bud.”