The Efficacy of Antimicrobials for the Treatment of Canine Pyoderma in the UK : First opinion practice pilot study findings

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Introduction

Dermatological conditions represent a major indication for antimicrobial usage in the small animal practice. Canine pyoderma in particular can require prolonged therapeutic management and can result in treatment failure if inappropriately managed (Scott an Paradis 1990; Hill, Lo et al. 2006). As yet few studies have sought to describe the frequency, management regimes employed and treatment outcomes of canine pyoderma cases presented to small animal first opinion practice (FOP) in the UK.

Evaluation of pyoderma caseloads in the first opinion setting would contribute considerably to the knowledge-base of both veterinary researchers and practitioners, providing estimates of disease prevalence and risk factors for treatment failure.

Aims and objectives

1)To estimate the **frequency** of canine pyoderma in the UK

2)To describe the **common treatment practices** for canine pyoderma in general practice and dermatology referral situations in the UK

3)To evaluate **risk factors for treatment relapse and failure** in both primary and referral UK veterinary practice.

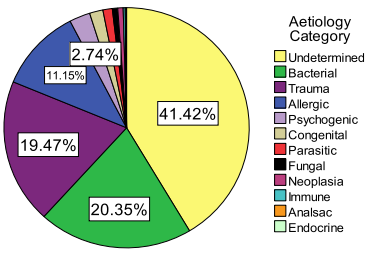
Pilot study Materials and Methods

Pilot data collection: Three UK small animal FOP were recruited to submit data on clinical caseload over an initial period of one year. Vets were asked to prospectively assign a diagnostic summary code to each entry routinely recorded on the Electronic Patient Record (EPR) component of their computerised Practice Management System (PMS) over the study period. Data is captured via extraction of the required data fields through a pre-existing query set up in the PMS software.

Standardised terms: A standardised list of summary terms was provided within the software from which vets could choose the most appropriate to describe the diagnosis, presenting complaint or reason for visit. This list has been developed from one used at the RVC referral hospital for several years. It is now maintained by a multi-institution coding committee (VENOM Coding Group: www.venom.org) and is continuing to evolve to cover those diagnoses and presenting complaints pertinent to FOP.

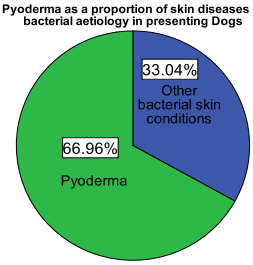
Software: The original PMS provider involved was RXWorks, and all three pilot practices were already using this software at the onset of the study period.

Dermatological caseload findings



In dogs, the aetiology of the dermatological presenting complaint was most often classifiable as 'undetermined' (41.2%). A bacterial cause was behind 20.4% of canine skin complaints, followed by traumatic injury (19.5%) and allergy (11.2%).

Of those dermatological conditions considered to have a bacterial cause 67% were described as pyoderma of some type .



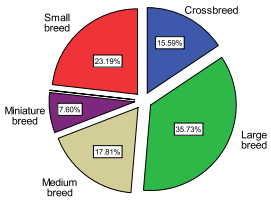
Where summary codes had not been used varied terminology was demonstrated in reference to pyodermic disease. Some examples included:

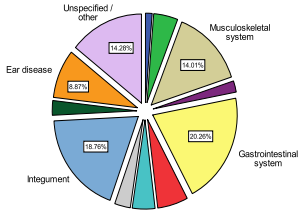
- Dermatitis - pyotraumatic (acute moist)
- Pyoderma – superficial
- Skin infection
- Lip fold pyoderma
- Hot Spot

Demographic and caseload findings

This analysis represents the ~40% of all canine records submitted over one year to which a diagnostic code was assigned (visits of 2751 individual dogs). Genders were approximately equally distributed. The purebred:crossbreed ratio was 6:1; large breeds were the most frequently recorded size category. The 5 most frequently presented breeds were the Labrador retriever, English Springer spaniel, Jack Russell terrier, English Cocker spaniel and German shepherd dog. Patient age range was 0.3-21 years, with a median age of 7.0 years at first presentation during the study period.

Excluding non-clinical categories (such as administrative tasks) preventative health care was the most common primary reason given for a visit to the vet, accounting for 20% of all coded canine consultations. Overall, the gastrointestinal system. was the most common body system causing clinical presentation (20%), closely followed by the integument (19%).





Moving forward.....

Project developments since the pilot phase have included:

1)Recruitment of further participant practices, including 3 large companies with branches nationwide, to code diagnoses and submit data for the main study.
2)Continued work with RxWorks and now additional PMS providers to provide scope for participation by a wider range of practices.
3)Design of strategies to easily extract required treatment data from submitted EPR datasets.
4)Work towards standardisation of drug terminology in submitted data.
5)Consideration of the potential use of freetext analysis techniques for data searching (particularly for records with no assigned diagnostic/ complaint code.)
6)Planning of a parallel study using UK referral patient records from specialist dermatology units (such as the Queen Mother Hospital, RVC)

References:
urvey of the prevalence, diagnosis and treatment of dermatological conditions in small animals in general practice. Vet Rec 158, 533-539.Hill, P.B., Lo, A., Eden, C.A., Huntley, S., Morey, V., Ramsey, S., Richardson, C., Smith, D.J., Sutton, C., Taylor, M.D., Thorpe, E., Tidmarsh, R., Williams, V., 2006. Establishing an Electronic Patient Record (EPR) in first opinion practice: challenges to overcome. Society of Veterinary Epidemiology and Preventative Medicine. Liverpool, UK

This work is supported by the BBSRC and Pfizer. Thank you to RXWorks© and selected RXWorks client practices for their assistance. Thank you also to Melissa Upjohn for her input on the Electronic Patient Record data collection strategy and pilot practice recruitment.