

Investigating Canine Sepsis

Introduction

Sepsis (systemic blood-stream infection) is a common cause of severe illness in dogs, as well as in people, and often proves fatal. One of the reasons sepsis is so serious is that it is associated with highly complex changes in the immune system. Much intense research in human medicine is directed towards understanding these changes further: we would like to study the immune system in dogs with pneumonia and pyothorax, so we may be better able to treat dogs with these disorders in the future.

We are recruiting dogs that are referred to the Queen Mother Hospital for Animals with a history of dyspnoea. Dogs can be enrolled in the study if a diagnosis of pneumonia or pyothorax complicated by systemic inflammatory response syndrome (SIRS) is confirmed, although dogs with dyspnoea, but without a final diagnosis of pneumonia or pyothorax, will also be studied.

The study requires blood samples to be taken on three occasions, at the same time as other tests are taking place; these samples will then be analysed for the type of inflammatory cells present (in particular, regulatory T cells) and also for certain molecules (cytokines) found in association with sepsis. Although we believe that our findings will improve our ability to treat dogs with pneumonia, pyothorax and sepsis in the future, this study is observational in nature. The normal investigation and management of a patient with dyspnoea will therefore not be affected by recruitment onto the trial.

Eligibility

- Dogs > 5kg
- Patients should not have received corticosteroids within 7 days of presentation and should not have received more than 3 weeks of treatment with corticosteroids within 1 month of presentation
- Patients should not have received non-steroidal anti-inflammatory drugs within 3 days of presentation
- Patients should not be anaemic (defined as a PCV < 25%)
- Patients should not have a history (or diagnosis) of neoplastic or autoimmune disease
- Pyothorax cases should not require surgical exploration

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Outside normal working hours, please contact the Queen Mother Hospital for Animals Reception on 01707 666399 and ask to speak to the Duty ECC Clinician. Please feel free to contact us with any queries or to discuss a case. Thank you!

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shaping futures**

