



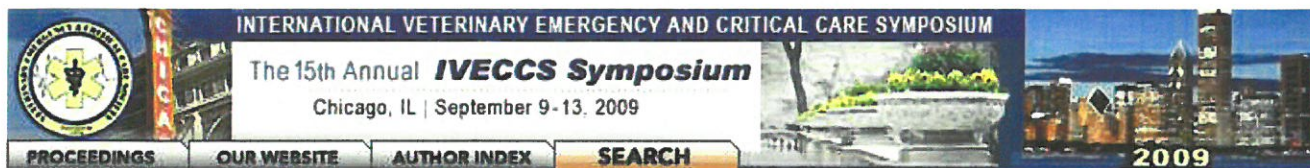
## Use of an endotoxin activity assay to identify infection and evaluate outcome in canine ICU patients

Dickinson, A.E.; Shaw, S.P.; de Laforcade, A.M.; Kjelgaard-Hansen, Mads

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## Use of an Endotoxin Activity Assay to Identify Infection and Evaluate Outcome in Canine ICU Patients

A.E. Dickinson<sup>1</sup>; S.P. Shaw<sup>1</sup>; A.M. de Laforcade<sup>1</sup>; M. Kjelgaard-Hansen<sup>2</sup>

<sup>1</sup>Tufts University Cummings School of Veterinary Medicine, North Grafton, MA, USA; <sup>2</sup>University of Copenhagen, Faculty of Life Science, Copenhagen, Denmark

### INTRODUCTION

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Endotoxin levels have been measured in people and correlate with the presence of infection. An endotoxin assay has recently been validated for use in dogs. The aim of the study was to investigate the diagnostic and prognostic significance of the endotoxin activity (EA) in a population of canine ICU patients.

### METHODS

One-hundred dogs consecutively admitted to the Tufts University ICU were sampled and analyzed using the Endotoxin Activity Assay (SpectralDx) within 30 minutes. Clinicopathologic and physical parameters were also recorded. Patients were categorized as having infection or non-infection/unclear based on clinical findings and laboratory tests. Short term survival was recorded. The diagnostic and prognostic significance of EA was evaluated by multiple logistic regression analysis with 'infection status' and 'survival' as outcome variables.

### RESULTS

Prevalence of infection and short term mortality rates were 21% and 17%, respectively. Endotoxin activity did not correlate significantly with presence of infection ( $p > 0.1$ ), however it demonstrated significance ( $p = 0.08$ ) in a final prognostic model (including weight, mean arterial pressure, total solids, creatinine, EA). Patients less than 20kg were more likely to survive than dogs over 20kg ( $p < 0.01$ ).

### CONCLUSIONS

The use of the EA in this population of critically ill dogs failed to show a significant relationship to bacterial infection, but may be useful to provide prognostic information. Dogs less than 20kg were more likely to survive than heavier dogs, which may merit further investigation.

### SPEAKER INFORMATION

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#### [A.E. Dickinson](#)

Tufts University Cummings School of Veterinary Medicine  
North Grafton, MA, USA



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