Letter to the Editor

J Vet Intern Med 2014;28:748

10.1111/jvim.12354

Dear Editor
The authors would like to thank Dr. Mathews and Dr. Dyson for their comments on our recently published article “Systematic Review of Nonsteroidal Anti-Inflammatory Drug-Induced Adverse Effects in Dogs”, as it contributes to further discussion on the topic.

Indeed, we acknowledge that the article by Mathews et al. 1990 “Nephrotoxicity in dogs associated with methoxyflurane anesthesia and flunixin meglumine analgesia” was erroneously referenced beside the statement “a nonsteroidal anti-inflammatory drug (NSAID) was administered with a corticosteroid or another NSAID”. In fact, an erratum had already been submitted to correct this reference positioning error.

Our study attempted to identify and evaluate the quality of information regarding NSAID-induced adverse effects in dogs through a systematic review. It is important to remember that our approach used a well-recognized means of assessing multiple studies in a fair and meaningful manner. The assessment criteria are clearly outlined in Tables 1, 2 and 3 and represent a means of evaluating information regarding single NSAIDs, or NSAIDs as a group, in a way that can be meaningfully applied to the population of dogs being treated in practice. Essentially, this is a way to grade the ‘generalizability’ of clinical and experimental research to the clinical population. Additionally, our review focused on distilling the available information on safety associated with the drug itself, not varying combinations of NSAIDs and other agents. We did not discuss the merit, nor the temporal or historical context of each individual study which would be beyond the scope of this review, and potentially misleading unless each and every study was discussed in that manner. We do realize the importance of the study by Mathews et al. 1990 at that time, and com-

plement them for providing scientific evidence that methoxyflurane (MOF) in association with flunixin meglumine (FM) led to acute renal failure in dogs. However, despite its importance in indicating a link between the concurrent use of MOF and an NSAID (FM), that study, either alone, or in combination with the other available evidence regarding FM, does not constitute a substantial body of information regarding FM-induced adverse effects. Further, when looking across different NSAIDs, there is a dearth of information about NSAID-induced renal adverse effects. Indeed, in conclusion, we suggested “Large clinical trials associated with better specific diagnostic tools may elucidate the incidence of renal adverse drug experience in dogs after NSAID administration.”

With respect, we stand by our conclusion of “*extremely low strength of evidence*” for flunixin meglumine, but this in no way detracts from the importance of the Mathews et al. study in communicating a potential issue associated with the concurrent use of MOF and flunixin meglumine.

Beatriz P. Monteiro-Steagall

From the Department of Veterinary Biomedical Sciences, Faculty of Veterinary Medicine, University of Montreal, Saint Hyacinthe, QC Canada (Monteiro-Steagall)

Paulo V.M. Steagall

the Department of Clinical Sciences, Faculty of Veterinary Medicine, University of Montreal, Saint Hyacinthe, QC Canada (Steagall)

B. Duncan X. Lascelles

and the Comparative Pain Research Laboratory, Department of Clinical Sciences, Center for Comparative Medicine and Translational Research, College of Veterinary Medicine, North Carolina State University, Raleigh, NC (Lascelles)