

*Letter to the Editor**J Vet Intern Med* 2017;31:1370

DOI: 10.1111/jvim.14785

Dear Editor,
Thank you for the opportunity to respond to the letter of Dr McKenzie regarding our recent publication “Results of Screening of Apparently Healthy Senior and Geriatric Dogs.”¹ In this article, we document clinical and laboratory abnormalities in elderly dogs that were considered to be healthy for their owner. We agree with Dr McKenzie that not every abnormality is necessarily clinically relevant and that it remains to be proven that earlier detection of certain abnormalities will lead to improved longevity and/or quality of life, as was also stated in our article.¹ We thank Dr McKenzie for giving us the opportunity to elaborate further on this important issue.

We agree that further research to evaluate the actual impact of health screening on the morbidity and mortality of veterinary patients is warranted. However, it is important to be cautious with extrapolating findings from human medicine to veterinary medicine as the situation in veterinary medicine might be even more complicated compared to human medicine. Veterinarians have to rely on observations made by the owner, who is often unable to recognize subtle or mild clinical signs, resulting in a further delay of detection of potentially significant abnormalities.^{2–5} It is the responsibility of veterinarians to assure a thorough history is taken, ideally based on a questionnaire, to obtain the necessary information as a part of health screening. For example, several owners in our study did not detect or appreciate polyuria/polydipsia as a problem;¹ however, this finding is often clinically relevant, and further examination is warranted in those cases.

Health screening is also of value to provide baseline values for an individual dog. For example, for dogs suffering from white-coat hypertension, antihypertensive treatment is indeed not beneficial, but knowing which dogs are sensitive to stress will facilitate interpretation of future blood pressure measurements and may also give the opportunity to train dogs to the blood pressure measurement procedure.⁶ The limitation of a single blood pressure measurement was addressed in the manuscript. Further, to improve interpretation of laboratory abnormalities, the use of subject-based reference intervals could be beneficial, which warrants baseline values.^{7,8} The IRIS staging system already recognizes the clinical importance of serial increase in serum creatinine within the reference interval to support the presence of chronic kidney disease stage 1.⁹ The early detection of chronic kidney disease and institution of a suitable treatment has already been proven to be beneficial,^{10,11} but data are lacking for most other diseases. Thus, results of health screening tests need to be critically evaluated by veterinarians. In case of questionable

clinical relevance, a follow-up will be more appropriate than immediate further diagnostics or treatment.

In conclusion, we definitively agree that further studies, ideally with long-term follow-up, are needed to provide evidence for the exact benefit of screening, clinical relevance of some detected abnormalities and importance of overdiagnosis in veterinary medicine. We want to point out that these goals were outside the scope of our manuscript. Until these data are available, we think that there are currently more arguments “pro” health screening than “contra,” provided that results are critically interpreted.

References

1. Willems A, Paepe D, Marynissen S, et al. Results of Screening of Apparently Healthy Senior and Geriatric Dogs. *J Vet Intern Med* 2017;31:81–92.
2. Bartlett PC, Van Buren JW, Bartlett AD, Zhou C. Case-control study of risk factors associated with feline and canine chronic kidney disease. *Vet Med Intern* 2010;2010:9.
3. Metzger FL. Senior and geriatric care programs for veterinarians. *Vet Clin North Am Small Anim Pract* 2005;35:743–753.
4. Davies M. Geriatric screening in first opinion practice – results from 45 dogs. *J Small Anim Pract* 2012;53:507–513.
5. Paepe D, Verjans G, Duchateau L, et al. Routine health screening findings in apparently healthy middle-aged and old cats. *J Feline Med Surg* 2013;15:8–19.
6. Schellenberg S, Glaus TM, Reusch CE. Effect of long-term adaptation on indirect measurements of systolic blood pressure in conscious untrained beagles. *Vet Rec* 2007;161:418–421.
7. Bellows J, Colitz CMH, Daristotle L, et al. Defining healthy aging in older dogs and differentiating healthy aging from disease. *J Am Vet Med Assoc* 2015;246:77–89.
8. Walton RM. Subject-based reference values: Biological variation, individuality, and reference change values. *Vet Clin Pathol* 2012;41:175–181.
9. International Renal Interest Society (IRIS) website. IRIS Staging of CKD (modified 2015). In: 2016: <http://www.iris-kidney.com/pdf/staging-of-ckd.pdf>. Accessed May 05, 2017.
10. Jacobs F, Polzin DJ, Osborne CA, et al. Clinical evaluation of dietary modification for treatment of spontaneous chronic renal failure in dogs. *J Am Vet Med Assoc* 2002;220:1163–1170.
11. Hall JA, Fritsch DA, Yerramilli M, et al. A longitudinal study on the acceptance and effects of a therapeutic renal food in pet dogs with IRIS-Stage 1 chronic kidney disease. *J Anim Physiol Anim Nutr* 2017;00:1–11. <https://doi.org/10.1111/jpn.12692>.

A. Willems DVM, DECVIM-CA,
D. Paepe DVM, DECVIM-CA and
S. Daminet DVM, DECVIM-CA, DACVIM
Ghent University, Ghent, Belgium

Current address: A. Willems, Royal (Dick) School of Veterinary Studies, Edinburgh, Scotland