

*Letter to the Editor**J Vet Intern Med* 2017;31:1369

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Dear Editors,
The recent article Results of Screening of Apparently Healthy Senior and Geriatric Dogs provides valuable information about the prevalence of various abnormalities detected with clinical laboratory testing and physical examination in this population. Such exploratory studies are a necessary first step in advancing preventative medicine efforts.

However, we must be careful not to assume that because we find abnormalities in apparently healthy animals when we look for them that the detection of such abnormalities is automatically beneficial to these patients. There is growing recognition in human medicine that such screening frequently leads to overdiagnosis, the detection of a disease or abnormality which will not lead to significant clinical harm and for which treatment has no net benefit to the patient.^{1,2}

The true value of screening can only be determined by the collection of population-level data identifying the impact, if any, on morbidity and mortality. In humans, such data have revealed that even for serious diseases, such as prostate and breast cancer, some screening methods do not provide a net benefit to patients, and some even do more harm than good. Wasted resources, unnecessary anxiety, and direct physical harm to patients can occur as a result of screening tests in asymptomatic individuals. The growing recognition of this has led to guidelines which recommend against some tests in some populations.^{3,4}

Unfortunately, the subject of overdiagnosis is rarely discussed in veterinary medicine. There appears to be a widespread belief that laboratory testing and regular examinations of asymptomatic pets are an unalloyed good which should be viewed as a necessary component of veterinary care despite the lack of evidence demonstrating such testing reduces morbidity and mortality.^{5,6} The question of the potential harms of overdiagnosis and the balance of risks and benefits from screening tests is rarely addressed.

The authors of this report do acknowledge the issue obliquely. For example, they discuss the possibility that the unexpectedly high prevalence of hypertension in this population may have been an artifact rather than a representation of the true level of disease. If this is true, then additional testing or medical intervention for hypertension in these patients would clearly not be beneficial, and it could potentially lead to unnecessary cost and inconvenience for owners and risk of harm to patients. The same logic applies to many of the laboratory abnormalities identified in this study.

The clinical significance of abnormalities detected during screening of apparently healthy individuals and the value of further diagnostic or treatment interventions cannot be assumed. In the absence of evidence showing that screening leads to reductions in morbidity and mortality and that benefits outweigh costs and risks, veterinarians should be cautious about promoting such untargeted diagnostics. Certainly, informed consent requires discussing the potential risk of overdiagnosis with clients.

Future studies of screening should address this risk directly and make an effort to collect specific data to help elucidate the harms and benefits of screening. This could involve epidemiologic studies comparing the rate of diagnosis with the mortality rate for specific tests and disease, as is performed in human medicine. It could also involve follow-up studies of patients whose owners decline further diagnostics and treatments, follow-up studies of patients with incidental lesions detected during imaging, and postmortem studies to help determine the prevalence of lesions that did not lead to antemortem symptoms or death. Only with an awareness of the problem of overdiagnosis and explicit attempts to identify and mitigate it can we ensure our screening efforts truly benefit our patients.

References

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