



BSAVA
BRITISH SMALL ANIMAL VETERINARY ASSOCIATION

**European Society of Veterinary
Endocrinology** 

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Changes in canine cortisol measurements

The BSAVA is working with the European Society of Veterinary Endocrinology (ESVE) to inform vets about a change in the antibody used to test for cortisol.

The ESVE has become aware through its Endocrine Quality Assurance (EQA) Scheme that there will be a permanent change in the antibody used for the cortisol test for the Siemens Immulite 2000. The change affects the antibody pool from kit Lot 550 onwards, meaning that it has already affected some laboratories and others will be affected in the next few weeks to months. At present, the new antibody lots are not being released to the USA market. Other analysers are unaffected.

The ESVE has been working hard with the laboratories in its EQA scheme to quantify the impact on results and reference limits. An initial review by the ESVE-EQA based on >400 canine serum and >40 urine results suggests that canine serum cortisol results are lower (average bias -23% in canine serum) than diagnostic laboratories and clinicians have been used to in the past. The effect is more marked in canine urine cortisol (average bias -70%).

Since being alerted by the ESVE-EQA, the manufacturer has derived mathematical adjustment factors that laboratories can incorporate into their systems to mitigate the impact on results. If the manufacturer adjustment is used, then the results will be around 8% lower on average in serum and around 60% lower in urine. Cut-offs to diagnose hyperadrenocorticism and rule out hypoadrenocorticism may need to be validated again with the new assay. There is not yet sufficient data in the ESVE-EQA collaboration to assess the impact on feline and equine samples.

Professor Ian Ramsey, President of the BSAVA and one of the founders of ESVE, said: "Individual laboratories may have different ways of dealing with this change and therefore it is important to keep in touch with your laboratory provider concerning their approach. Some may choose to make the mathematical adjustments to results so that common and historic cut-off values can continue to be used. Others may report their results directly but change their guidance on interpretative cut-off values."

Dr Peter Graham, ESVE-EQA Co-ordinator, concluded: "ESVE advises that all cortisol results from Siemens Immulite 2000 assays that are close to a threshold are interpreted cautiously. ESVE also advises that all endocrine results should be

interpreted in the light of clinical findings and would like to remind clinicians that spurious results may occur in any assay, though this is rare.”

The BSAVA and ESVE encourage laboratories to tell clinicians which analyser they are using. Suitable wording regarding the interpretation of any values of cortisol based on Siemens Immulite 2000 results should be provided by laboratories for the foreseeable future.

ENDS

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