

## EVALUATION OF A CANINE C-REACTIVE PROTEIN (CRP) POINT-OF-CARE TEST.

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The objective of this study was to evaluate a CRP point-of-care test (Lateralflow Immunoassay, ( MEGACOR GmbH, Austria) for qualitative CRP measurement in healthy and diseased dogs.

Blood samples of 69 client-owned dogs were available for testing: 16 healthy dogs and 53 dogs suffering from different infectious, inflammatory or neoplastic diseases. CRP was measured in heparinized whole blood samples and serum with the point-of-care test; an ELISA (Tridelta Development Ltd, Kildare, UK) validated for canine samples was used as a reference method. CRP reference values for healthy dogs range from 0.8-5.4 µg/ml; the cut-off for the point-of-care test is 5 µg/ml, visible by a color change.

The serum CRP values of all dogs measured with the ELISA ranged from 0.3 to ≥ 350 µg/ml (median 39.2) (table 1). The sensitivity and specificity of the point-of care test compared to the reference method using whole blood was 96% and 100%, respectively, and 100% and 94%, respectively, using serum samples.

		CRP - test		ELISA		Sens. (%)	Spec. (%)
		<i>pos</i>	<i>neg</i>	<i>pos</i>	<i>neg</i>		
Healthy n=16	Blood	2	14			100	100
	Serum	4	12	2	14	100	86
				0.4 - 10.2 µg/ml median 1.55 µg/ml			
Sick n=53	Blood	48	5			98	100
	Serum	49	4	49	4	100	100
				0.3 - ≥ 350 µg/ml median 67.5 µg/ml			

Table 1: Results of qualitative CRP measurements.

In summary the point-of-care test was capable of discriminating between normal and increased CRP concentrations with a high sensitivity and specificity and may therefore be introduced as an inflammation screening test.