Preanalytical variability in animals, v2

02. Dogs

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Suggestion for use

The following information is summarized from original studies performed in very diverse conditions, with different instruments and methods, sometimes with multiple factors of variations studied simultaneously. It can thus be biased, partial, simplified, distorted, and should always be checked from the original publication.

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AAP	**Dog**	*Urine*	*Other biological*	●U: no sex difference(*Nakamura et al. 1983*)
AAP	**Dog**	*Urine*	*Stability*	●U: much higher in gel filtered than in native urine; stable up to 1mth at 4° & -18°C(*Reusch et al. 1991*)
ACTH	**Dog**	*Blood*	*Anticoagulant*	●P(EDTA): lower when aprotinin added with chemiluminescent not immunoradiometric assay(*Scott-Moncrieff et al. 2003*)
ACTH	**Dog**	*Blood*	*Exercise*	●P(EDTA): increased during 1.5 h high- and low-intensity treadmill exercise, decreasing from 30 min of recovery(*Baltzer et al. 2012, Radosevich et al. 1989*)
ACTH	**Dog**	*Blood*	*Stability*	●P(EDTA): stable up to 9d at 0 or -80°C, at 4°C if aprotinin added(*Scott-Moncrieff et al. 2003*)
ACTH	**Dog**	*Blood*	*Time variability*	●P(EDTA): no circadian rhythm(*Kemppainen and Sartin 1984*)
ADH	**Dog**	*Blood*	*Drugs*	●P(EDTA): x5-7 after acepromazine before surgery(*Hauptman et al. 2000*)
ADH	**Dog**	*Blood*	*Drugs*	●P(EDTA): not different up to 90min after dexmedetomidine (5 µg/kgIV) after physical exercise or not (*Raekallio et al. 2005*)
Adiponectin	**Dog**	*Blood*	*Colour*	●S: no effect of lipemia up to 5 g/L TG and of hemolysis up to 8g/L Hb(*Tvarijonaviciute et al. 2010*)
Adiponectin	**Dog**	*Blood*	*Drugs*	●S: decreased from day 1 up to day 90 by daily oral hydrocortisone administration(*Choo et al. 2019*)
Adiponectin	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Adiponectin	**Dog**	*Blood*	*Other biological*	●S: decreased with body score(*Kolodziejski et al. 2021*)
Adiponectin	**Dog**	*Blood*	*Other biological*	●S: increased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Adiponectin	**Dog**	*Saliva*	*Other technical*	●Saliva : ~4 times higher than in S(*Tvarijonaviciute et al. 2014*)
Adiponectin	**Dog**	*Saliva*	*Sampling*	●Saliva: increased 1d after tooth cleaning; unchanged in S(*Tvarijonaviciute et al. 2014*)
ALAT/ALT	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results(*Thoresen et al. 1992*)
ALAT/ALT	**Dog**	*Blood*	*Colour*	●P(EDTA): increased by hemolysis(*Agudelo et al. 2014*)
ALAT/ALT	**Dog**	*Blood*	*Colour*	●S: 5% bias in hyperlipidemic specimens (dry chemistry); higher after LipoClear; lower after high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
ALAT/ALT	**Dog**	*Blood*	*Colour*	●S: unchanged or moderately increased by hemolysis according to analyzer/method(*O'Neill and Feldman 1989*)
ALAT/ALT	**Dog**	*Blood*	*Colour*	●S: increased by Hb and TG, no effect of Bilirubin(*Jacobs et al. 1992*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: x3 & x8 after 5 & 10d prednisone 4 mg/kg(*Solter et al. 1994*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: transiently increased up to 2d after 5h anesthesia with isoflurane or sevoflurane(*Yuan et al. 2012*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●P(Hep): progressively x3 over 2wk after 4mg/kg methylprednisolone(*Braun et al. 1981*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●P(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●P(Hep): progressive increase by ototopical dexamethasone(*Abraham et al. 2005*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: ~not changed after 2-13wk phenobarbital(*Foster et al. 2000*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: ~x2 after 3wk amiodarone(*Bicer et al. 2002*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: increased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: ~x2,5 after 27wk phenobarbital; not back to base after 9wk withdrawal(*Gieger et al. 2000*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: progressive increase by 2x5mg/kg/d phenobarbital; ~x2 from 13wk(*Muller et al. 2000*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: ~x4 after 52wk phenobarbital in epileptic dogs (*Chauvet et al. 1995*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: ~60% decrease after 7.5 ml/kg Hb-glutamer; back to base at 1-2d(*Kerl and Langdon 2007*)
ALAT/ALT	**Dog**	*Blood*	*Drugs*	●S: unchanged after 6-8wk ursodesoxycholic acid(*Deitz et al. 2015*)
ALAT/ALT	**Dog**	*Blood*	*Exercise*	●S: no effect of 21 km race at 13 km/h(*Sanders and Bloor 1975*)

ALAT/ALT	Dog	*Blood*	*Exercise*	●P(?): transiently increased during 24wk-training in sled dogs(*Querengaesser et al. 1994*)
ALAT/ALT	Dog	*Blood*	*Exercise*	●S: increased by 5d endurance sled race(*McKenzie et al. 2007*)
ALAT/ALT	Dog	*Blood*	*Exercise*	●S: mild decrease during long distance sled race(*Hinchcliff et al. 1993*)
ALAT/ALT	Dog	*Blood*	*Exercise*	●P(Hep): not different up to 30 min after agility test(*Rovira et al. 2007*)
ALAT/ALT	Dog	*Blood*	*Exercise*	●S: 40% increase 1d after exercise in Greyhounds(*Lucas et al. 2015*)
ALAT/ALT	Dog	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
ALAT/ALT	Dog	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: ~40% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: unchanged by low protein- low phosphate diet(*Polzin et al. 1991*)
ALAT/ALT	Dog	*Blood*	*Food*	●P(Hep): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
ALAT/ALT	Dog	*Blood*	*Food*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: lower after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
ALAT/ALT	Dog	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
ALAT/ALT	Dog	*Blood*	*Food*	●P(?): not different after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
ALAT/ALT	Dog	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
ALAT/ALT	Dog	*Blood*	*Food*	●S: ~not different after food restriction(*Takamatsu et al. 2015*)
ALAT/ALT	Dog	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
ALAT/ALT	Dog	*Blood*	*Other biological*	●P(Hep): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
ALAT/ALT	Dog	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
ALAT/ALT	Dog	*Blood*	*Other biological*	●P(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
ALAT/ALT	Dog	*Blood*	*Other technical*	●P(Hep): mildly lower from vacuum tube in jugular vein than capillary tube in cephalic vein(*Reynolds et al. 2008*)
ALAT/ALT	Dog	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
ALAT/ALT	Dog	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
ALAT/ALT	Dog	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
ALAT/ALT	Dog	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from indwelling catheter (inserted freshly or 24h before) and direct venipuncture(*Guarino et al. 2022*)
ALAT/ALT	Dog	*Blood*	*Stability*	●S: <~10-15% changes 4d at 4°C & room temp; increased ~30% when centrifuged after 2d post transport(*Fontaine et al. 1986*)
ALAT/ALT	Dog	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles; increased after 3d storage at -20°C(*Reynolds et al. 2006*)
ALAT/ALT	Dog	*Blood*	*Stability*	●S & P(Hep): same results; unchanged if centrifugation delayed up to 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
ALAT/ALT	Dog	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
ALAT/ALT	Dog	*Blood*	*Stability*	●S: not different if centrifugation delayed up to 4h(*Friedel and Mattenheimer 1970*)
ALAT/ALT	Dog	*Blood*	*Stress*	●P(Hep): higher in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
ALAT/ALT	Dog	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
ALAT/ALT	Dog	*Blood*	*Time variability*	●S: circannual acrophase in February-April(*Sothern et al. 1993*)

ALAT/ALT	**Dog**	*Blood*	*Transport*	●S: not different after a 1d flight and road transport(*Liang et al. 2018*)
ALAT/ALT	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)
ALAT/ALT	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)
Albumin	**Dog**	*Blood*	*Anticoagulant*	●S: mildly higher than P(Hep) & P(EDTA), much higher than P(Cit) & P(Fl)(*Ceron et al. 2004*)
Albumin	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD): higher than P(Hep)(*Granat et al. 2017*)
Albumin	**Dog**	*Blood*	*Anticoagulant*	●S: mildly lower than P(Hep) & higher than P(Cit) with standard BCG; higher than P(Hep) and P(Cit) with bichromatic BCG(*Stokol et al. 2001*)
Albumin	**Dog**	*Blood*	*Anticoagulant*	●S: lower than P(Hep)(*Thoresen et al. 1992*)
Albumin	**Dog**	*Blood*	*Colour*	●P(EDTA)&S: increased in lipemic specimens(*Bonatto et al. 2021*)
Albumin	**Dog**	*Blood*	*Colour*	●S(Act): mildly increased during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Albumin	**Dog**	*Blood*	*Colour*	●S: increased in lipemic specimens(*Bonatto et al. 2021*)
Albumin	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*Leard et al. 1990*)
Albumin	**Dog**	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); not different after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Albumin	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*O'Neill and Feldman 1989*)
Albumin	**Dog**	*Blood*	*Colour*	●S: changes <10% by Hb up to 6g/L, Bilirubin up to 600mg/L & TG up to 6g/L(*Jacobs et al. 1992*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: +20% after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)
Albumin	**Dog**	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Albumin	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Albumin	**Dog**	*Blood*	*Drugs*	●B(Hep): isoflurane anesthetized dogs; decreased 5min after injection of 15 mL/kg hydroxyethylstarch in saline or a polyionic solution; back to base after 3hrs(*Adamik et al. 2018*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: not changed after 2-13wk phenobarbital(*Foster et al. 2000*)
Albumin	**Dog**	*Blood*	*Drugs*	●P(Fl): not different after 6wk prednisolone(*Kovalik et al. 2012*)
Albumin	**Dog**	*Blood*	*Drugs*	●P(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: time & dose-dependant decrease in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: 10% increase after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Albumin	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: transient decrease by 2x5mg/kg/d phenobarbital(*Muller et al. 2000*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: increased after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: ~not different after 27wk phenobarbital(*Gieger et al. 2000*)
Albumin	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased from 2wk etodolac 13.7 mg/kg/d(*Panciera and Johnston 2002*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: 15-20% decrease from 26wk in epileptic dogs treated by phenobarbital(*Chauvet et al. 1995*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: increased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: increased ~100% from 1h after 7.5 ml/kg Hb-glutamer, back to base after 4d(*Kerl and Langdon 2007*)
Albumin	**Dog**	*Blood*	*Drugs*	●S: not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Albumin	**Dog**	*Blood*	*Exercise*	●P(Hep): unchanged by training in Greyhounds(*McKeever et al. 1985*)
Albumin	**Dog**	*Blood*	*Exercise*	●S: decreased by 5d endurance sled race(*McKenzie et al. 2007*)
Albumin	**Dog**	*Blood*	*Exercise*	●S: increased by anticipation & not after short-duration intense exercise(*Angle et al. 2009*)
Albumin	**Dog**	*Blood*	*Exercise*	●S: ~10% decrease after prolonged endurance exercise in sled dogs(*Panciera et al. 2003*)
Albumin	**Dog**	*Blood*	*Exercise*	●S: ~not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)

Albumin	**Dog**	*Blood*	*Exercise*	●P(Hep): ~not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Albumin	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Albumin	**Dog**	*Blood*	*Food*	●S: ~30% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Albumin	**Dog**	*Blood*	*Food*	●S: not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
Albumin	**Dog**	*Blood*	*Food*	●S: decreased by low protein- low phosphate diet(*Polzin et al. 1991*)
Albumin	**Dog**	*Blood*	*Food*	●P(Hep): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Albumin	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Albumin	**Dog**	*Blood*	*Food*	●S: ~not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Albumin	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
Albumin	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Albumin	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Albumin	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Albumin	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Albumin	**Dog**	*Blood*	*Food*	●S: decreased in 40% of cases of starvation(*Pointer et al. 2013*)
Albumin	**Dog**	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
Albumin	**Dog**	*Blood*	*Food*	●S: not different after food restriction(*Takamatsu et al. 2015*)
Albumin	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Albumin	**Dog**	*Blood*	*Other biological*	●P(Hep): ~not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
Albumin	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Albumin	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Albumin	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Albumin	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Albumin	**Dog**	*Blood*	*Stability*	●S: increased if centrifugation delayed 2d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Albumin	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Albumin	**Dog**	*Blood*	*Time variability*	●P(Hep): higher in summer(*Strasser et al. 2001*)
Albumin	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in February-March(*Sothern et al. 1993*)
Albumin	**Dog**	*Blood*	*Time variability*	●S: no seasonal effect in Scotland(*Hurst et al. 2020*)
Albumin	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)
Albumin	**Dog**	*Blood*	*Transport*	●S: decreased after a 1d flight and road transport(*Liang et al. 2018*)
Albumin	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)
Albumin	**Dog**	*CSF*	*Colour*	●CSF: no interference by hemoglobin (up to 5g/L and glucose up to 30g/L (immunoturbidimetry)(*Gentilini et al. 2005*)
Albumin	**Dog**	*Urine*	*Colour*	●U: no interference by hemoglobin (up to 5g/L and glucose up to 30g/L) (immunoturbidimetry)(*Gentilini et al. 2005*)
Albumin	**Dog**	*Urine*	*Colour*	●U: unchanged by moderate hematuria(*Vaden et al. 2004*)
Albumin	**Dog**	*Urine*	*Drugs*	●U: UAC ~x3, 5.5, 9 after hydrocortisone 8.5 mg/kg/12h for 1, 2, 3 mth(*Schellenberg et al. 2008*)
Albumin	**Dog**	*Urine*	*Exercise*	●U: 5km walk in 30-40 min at 25°C; decreased in males with alb/creat not different; not different in females with increased alb/creat (*Paslawska et al. 2020*)
Albumin	**Dog**	*Urine*	*Exercise*	●U: not different up to 2d after 20min flat treadmill exercise(*Gary et al. 2004*)
Albumin	**Dog**	*Urine*	*Exercise*	●U: concentration and Alb/Creat more increased in females than males 30 min after searching exercise of trained military dogs(*Spinella et al. 2023*)
Albumin	**Dog**	*Urine*	*Other biological*	●U: UPC decreased by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
Albumin	**Dog**	*Urine*	*Stability*	●U: traces not degraded by repeated freeze-thaw cycles(*Whittemore et al. 2006*)

Albumin	Dog	*Urine*	*Stability*	●U: same in voided and cystocentesis urine; stable up to 4mth at -20°C, 12mth at-80°C(*Smets et al. 2010*)
Aldosterone	Dog	*Blood*	*Drugs*	●P(Hep): basal and ACTH-stimulated increased by prednisone (2x0.55 mg/kg/d)(*Corrigan et al. 2010*)
Aldosterone	Dog	*Blood*	*Drugs*	●S: more increased by torsemide than furosemide(*Potter et al. 2019*)
Aldosterone	Dog	*Blood*	*Drugs*	●P(?): decreased after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
Aldosterone	Dog	*Blood*	*Drugs*	●P(?): progressively increased by phenobarbital in epileptic dogs (*Chauvet et al. 1995*)
Aldosterone	Dog	*Blood*	*Drugs*	●B(Hep): increased after furosemide & azosemide(*Hori et al. 2008*)
Aldosterone	Dog	*Blood*	*Other technical*	●S: not different during acclimatization to repetitive blood sampling on 6wk(*Slaughter et al. 2002*)
ALP	Dog	*Blood*	*Anticoagulant*	●P(CTAD): lower than P(Hep)(*Granat et al. 2017*)
ALP	Dog	*Blood*	*Anticoagulant*	●S & P(Hep): same results(*Thoresen et al. 1992*)
ALP	Dog	*Blood*	*Colour*	●S: changes <10% by Bilirubin up to 600mg/L & TG up to 6g/L; mildly decreased by hemoglobin(*Jacobs et al. 1992*)
ALP	Dog	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); increased after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
ALP	Dog	*Blood*	*Colour*	●S: decreased by hemolysis(*Leard et al. 1990*)
ALP	Dog	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
ALP	Dog	*Blood*	*Drugs*	●S: x10 after 4mg/kg prednisone for 10d(*Solter et al. 1994*)
ALP	Dog	*Blood*	*Drugs*	●S: x7 after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)
ALP	Dog	*Blood*	*Drugs*	●S: not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
ALP	Dog	*Blood*	*Drugs*	●S: transiently increased 24h after 5h anesthesia with isoflurane or sevoflurane(*Yuan et al. 2012*)
ALP	Dog	*Blood*	*Drugs*	●P(Hep): progressive increase after 4mg/kg methylprednisolone(*Braun et al. 1981*)
ALP	Dog	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
ALP	Dog	*Blood*	*Drugs*	●S: increased after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
ALP	Dog	*Blood*	*Drugs*	●P(Hep): progressive increase by ototopical dexamethasone(*Abraham et al. 2005*)
ALP	Dog	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
ALP	Dog	*Blood*	*Drugs*	●S: not changed after 2-13wk phenobarbital in epileptic dogs not in healthy dogs(*Foster et al. 2000*)
ALP	Dog	*Blood*	*Drugs*	●S: increased in ~1/3 dogs treated with phenobarbital(*Gaskill et al. 2004*)
ALP	Dog	*Blood*	*Drugs*	●S: increased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
ALP	Dog	*Blood*	*Drugs*	●S: total and G-ALP increased from day14 by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
ALP	Dog	*Blood*	*Drugs*	●S: ~x2 by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
ALP	Dog	*Blood*	*Drugs*	●S: ~not different after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
ALP	Dog	*Blood*	*Drugs*	●S: ~x2 after 3wk prednisone (1mg/kg/d), back to base after 1-2wk; progressive increase x3 on 3wk after methylprednisone acetate 1.1mg/kg, back to base after 1wk; x3 after 1wk dexamethasone 0.25 mg/kg/d, , back to base after 1wk(*Ginel et al. 2002*)
ALP	Dog	*Blood*	*Drugs*	●S: total and glucocorticoid-induced ALP increased by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
ALP	Dog	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
ALP	Dog	*Blood*	*Drugs*	●S: ~x4 after 27wk phenobarbital; ~back to base after 5wk withdrawal(*Gieger et al. 2000*)
ALP	Dog	*Blood*	*Drugs*	●S: progressive increase by 2x5mg/kg/d phenobarbital; ~x5 from 13wk(*Muller et al. 2000*)
ALP	Dog	*Blood*	*Drugs*	●S: progressive increase from 2wk phenobarbital in epileptic dogs(*Chauvet et al. 1995*)
ALP	Dog	*Blood*	*Drugs*	●S: ~70% decrease 3h after 7.5 ml/kg Hb-glutamer; back to base at 4d(*Kerl and Langdon 2007*)
ALP	Dog	*Blood*	*Drugs*	●S: progressive increase by 4mg/kg/d prednisone(*Sanecki et al. 1987*)
ALP	Dog	*Blood*	*Drugs*	●S: progressive increase by 2mg/kg/d prednisolone; induction of isoenzyme(*Dorner et al. 1974*)
ALP	Dog	*Blood*	*Drugs*	●S: unchanged after 6-8wk ursodesoxycholic acid(*Deitz et al. 2015*)

ALP	**Dog**	*Blood*	*Exercise*	●S: increased by 5d endurance sled race(*McKenzie et al. 2007*)
ALP	**Dog**	*Blood*	*Exercise*	●S: mild decrease during long distance sled race(*Hinchcliff et al. 1993*)
ALP	**Dog**	*Blood*	*Exercise*	●P(Hep): not different up to 30 min after agility test(*Rovira et al. 2007*)
ALP	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
ALP	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
ALP	**Dog**	*Blood*	*Exercise*	●S: bone isoenzyme increased after 7km race of Greyhounds(*Tharwat et al. 2014*)
ALP	**Dog**	*Blood*	*Food*	●S: ~75% higher in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
ALP	**Dog**	*Blood*	*Food*	●S: increased by low protein- low phosphate diet(*Polzin et al. 1991*)
ALP	**Dog**	*Blood*	*Food*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
ALP	**Dog**	*Blood*	*Food*	●P(Hep): lower in dogs fed a raw meat based diet than an extruded kibble diet(*Hiney et al. 2021*)
ALP	**Dog**	*Blood*	*Food*	●S: ~not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
ALP	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
ALP	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
ALP	**Dog**	*Blood*	*Food*	●S: bone isoenzyme not different in dogs fed diet enriched with protein, calcium, n-3 fatty acids & antioxidants for up to 18 mth(*Schoenherr et al. 2010*)
ALP	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
ALP	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
ALP	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
ALP	**Dog**	*Blood*	*Food*	●P(?): decreased after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
ALP	**Dog**	*Blood*	*Food*	●S: lower after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
ALP	**Dog**	*Blood*	*Food*	●S: intensely increased by colostrum intake in neonates(*Center et al. 1991*)
ALP	**Dog**	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
ALP	**Dog**	*Blood*	*Food*	●S: decreased after food restriction(*Takamatsu et al. 2015*)
ALP	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
ALP	**Dog**	*Blood*	*Other biological*	●P(Hep): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
ALP	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
ALP	**Dog**	*Blood*	*Other biological*	●P(Hep): same in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
ALP	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
ALP	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
ALP	**Dog**	*Blood*	*Other technical*	●P(Hep): variable minor changes in up to 11mth expired tubes(*Domingos et al. 2012*)
ALP	**Dog**	*Blood*	*Sampling*	●P(Hep): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
ALP	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from indwelling catheter (inserted freshly or 24h before) and direct venipuncture(*Guarino et al. 2022*)
ALP	**Dog**	*Blood*	*Stability*	●S & P(Hep): unchanged if centrifugation delayed up to 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
ALP	**Dog**	*Blood*	*Stability*	●S: decreased <15% in 4d at 4°C & room temp; decreased 20% when centrifuged after 2d post transport(*Fontaine et al. 1986*)
ALP	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
ALP	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
ALP	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
ALP	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
ALP	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in February-March(*Sothern et al. 1993*)
ALP	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)

ALP	**Dog**	*Blood*	*Transport*	●S: ~10% increase after long road & air transport(*Ochi et al. 2013*)
ALP	**Dog**	*Prostatic fluid*	*Stability*	●PrFl:decreased after 7d at -18°C(*Umbach et al. 2019*)
ALP	**Dog**	*Urine*	*Drugs*	●U: ALP & ALP/Cr unchanged for 2 days after halothane anesthesia +ovariohysterectomy(*Lobetti and Lambrechts 2000*)
ALP	**Dog**	*Urine*	*Drugs*	●U: ALP & ALP/Cr increased after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
ALP	**Dog**	*Urine*	*Drugs*	●U: ALP & ALP/Cr not different up to 2d after halothane anesthesia & elective surgery(*Lobetti and Lambrechts 2000*)
ALP	**Dog**	*Urine*	*Food*	●U(18h): not different after food restriction(*Takamatsu et al. 2015*)
Alpha-1 AGP	**Dog**	*Blood*	*Other biological*	●S: ~3 and 1.5 times lower in newborns and 2-3 mth-old than adults(*Yuki et al. 2009*)
Alpha-1 AGP	**Dog**	*Blood*	*Other biological*	●S: ~25% higher in Mongrels than in Beagles(*Yuki et al. 2009*)
Aminoacids	**Dog**	*Blood*	*Stability*	●P(Hep): different according to aa; less modified at -80 than -20°C, more stable in deproteinized specimens(*Chiang et al. 2021*)
Ammonium	**Dog**	*Blood*	*Anticoagulant*	●B(POCT): not different from B(EDTA) and lower than P(EDTA) with same POCT(*Odunayo et al. 2017*)
Ammonium	**Dog**	*Blood*	*Exercise*	●P(EDTA): high increase after race in Greyhounds(*Snow et al. 1988*)
Ammonium	**Dog**	*Blood*	*Food*	●P(Hep): ~unchanged for up to 8h following meal(*Walker et al. 2001*)
Ammonium	**Dog**	*Blood*	*Stability*	●P(Hep): un predictable variations during storage up to 4d at 21, 4, -15 & -40°C(*Hitt and Jones 1986*)
Ammonium	**Dog**	*Blood*	*Stability*	●B(EDTA): increased ~5 & 20% after storage 1 & 24 h at 4°C(*Goggs et al. 2008*)
Ammonium	**Dog**	*Blood*	*Stability*	●P(Hep) & B(Hep): stable up to 2h at 4°C(*Reis-Desmerie et al. 1995*)
Ammonium	**Dog**	*Urine*	*Food*	●U: decreased after 12d fasting; back to base after refeeding(*Lemieux and Plante 1968*)
Amylase	**Dog**	*Blood*	*Anticoagulant*	●P(Hep) & S: same results(*Medaille and Briend-Marchal 2004*)
Amylase	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): ~not different(*Granat et al. 2017*)
Amylase	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results; increased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Amylase	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
Amylase	**Dog**	*Blood*	*Colour*	●S: changes <10% by Hb up to 3g/L, Bilirubin up to 600mg/L & TG up to 6g/L(*Jacobs et al. 1992*)
Amylase	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Amylase	**Dog**	*Blood*	*Drugs*	●S: increased after 7.5 ml/kg Hb-glutamer, back to base after 2d(*Kerl and Langdon 2007*)
Amylase	**Dog**	*Blood*	*Food*	●S: ~30% higher in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Amylase	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Amylase	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Amylase	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Amylase	**Dog**	*Blood*	*Food*	●S: decreased after food restriction(*Takamatsu et al. 2015*)
Amylase	**Dog**	*Blood*	*Other biological*	●P(Hep): same in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Amylase	**Dog**	*Blood*	*Other biological*	●S: not different 7d after surgery for disease related pain(*Kang et al. 2022*)
Amylase	**Dog**	*Blood*	*Other biological*	●S: mild transient increase after endoscopic retrograde pancreatography(*Spillmann et al. 2004*)
Amylase	**Dog**	*Blood*	*Other biological*	●S: unchanged up to 2d after endoscopic fine needle aspiration of the pancreas(*Kook et al. 2012*)
Amylase	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Amylase	**Dog**	*Blood*	*Stability*	●S & P(Hep): decreased from 3mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Amylase	**Dog**	*Blood*	*Stability*	●S & P(Hep): same results; increased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Amylase	**Dog**	*Blood*	*Time variability*	●P(Hep): lower in winter(*Strasser et al. 2001*)
Amylase	**Dog**	*Blood*	*Time variability*	●S: circadian rhythm min 11am & max ~11pm, indpdt of fasting/fed status(*Piccione et al. 2008*)
Amylase	**Dog**	*Blood*	*Transport*	●S: decreased after a 1d flight and road transport(*Liang et al. 2018*)
Amylase	**Dog**	*Saliva*	*Other biological*	●Saliva: decreased 7d after surgery for disease related pain in most dogs(*Kang et al. 2022*)

Amylase	**Dog**	*Saliva*	*Stability*	●Saliva: not different after up to 6mth at -20°C(*Ricci et al. 2018*)
Amylase	**Dog**	*Saliva*	*Stress*	●Saliva: increased after sperm collection(*Contreras-Aguilar et al. 2017*)
Angiotensin	**Dog**	*Blood*	*Drugs*	●P(?): ~not different after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
Angiotensin	**Dog**	*Blood*	*Drugs*	●S: more increased by torsemide than furosemide(*Potter et al. 2019*)
Antithrombin	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Cit): not different(*Granat et al. 2017*)
Antithrombin	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): ~15% lower than P(EDTA)(*Ceron et al. 2008*)
Antithrombin	**Dog**	*Blood*	*Colour*	●P(Cit): decreased from 1.5 g Hb/L(*van der Merwe and Reyers 2007*)
Antithrombin	**Dog**	*Blood*	*Colour*	●P(Cit): ~20% decrease by moderate hemolysis (0.6 mmolHb/L); no effect of lipemia(*Bauer et al. 2009*)
Antithrombin	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 2wk prednisone ± acetylsalicylic acid(*O'Kell et al. 2012*)
Antithrombin	**Dog**	*Blood*	*Drugs*	●P(Cit): not different for 8d following 7d treatment with 2.0 mg/kg prednisone(*Hafner et al. 2022*)
Antithrombin	**Dog**	*Blood*	*Drugs*	●P(Cit): decreased from 12h by repeated unfractionated heparin(*Mischke et al. 2001*)
Antithrombin	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Antithrombin	**Dog**	*Blood*	*Other technical*	●P(Cit): independent of diameter of catheter(*Bauer et al. 2011*)
Antithrombin	**Dog**	*Blood*	*Sampling*	●P(Cit): not different in arterial & venous specimen(*Palsgaard-Van Lue et al. 2007*)
Antithrombin	**Dog**	*Blood*	*Stability*	●P(Cit): unchanged for 2d at 24°C and 4d at 4°C(*Furlanello et al. 2006*)
Antithrombin	**Dog**	*Blood*	*Stability*	●P(Cit): no effect of storage at-70°C for 6mth(*Bateman et al. 1999*)
Antithrombin	**Dog**	*Blood*	*Stability*	●P(Cit): stable 12h at room temp, 4°C & 24h at -80°C(*Ceron et al. 2008*)
APTT	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): increased if blood/citrate volume decreased(*Johnstone 1993*)
APTT	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): same results with 3.2 & 3.8% citrate; lower with optical detection of clot (*Stokol et al. 2000*)
APTT	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Cit): not different(*Granat et al. 2017*)
APTT	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): same results with 3.2 & 3.8% citrate(*Morales et al. 2007*)
APTT	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): effect of heparin is reagent-dependent(*Mischke 2003*)
APTT	**Dog**	*Blood*	*Colour*	●P(Cit): moderate decrease by moderate hemolysis (<1.3 mmolHb/L); almost x2 by intense hemolysis (6.6 mmol Hb/L); no effect of lipemia(*Bauer et al. 2009*)
APTT	**Dog**	*Blood*	*Colour*	●P(Cit): unchanged by hemolysis(*O'Neill and Feldman 1989*)
APTT	**Dog**	*Blood*	*Colour*	●P(Cit): non clinically significant effects of TG up to 20g/L, Hb up to 12,6 g/L, bilirubin up to 0.6 g/L(*Moreno and Ginel 1999*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): slightly increased by cephalexin, amoxicillin & enrofloxacin for 1wk(*Webb et al. 2006*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): not different for 8d following 7d treatment with 2.0 mg/kg prednisone(*Hafner et al. 2022*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
APTT	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d aspirin (2x10 mg/kg), carprofen (4.4 mg/kg), deracoxib (2 mg/kg) or meloxicam (0.1 mg/kg)(*Blois et al. 2010*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): ~not different after post hemorrhage volume replacement with lactated Ringer or hydroxyethyl starch(*Diniz et al. 2018*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): increased during and after IV glucose administration(*Gonzales et al. 2011*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 2wk prednisone ± acetylsalicylic acid(*O'Kell et al. 2012*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): mildly increased by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): increased by repeated unfractionated heparin(*Mischke et al. 2001*)
APTT	**Dog**	*Blood*	*Drugs*	●B(?): not different during 2d enoxaparin treatment in Beagles(*Pouzot-Nevoret et al. 2016*)
APTT	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
APTT	**Dog**	*Blood*	*Drugs*	●P: not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
APTT	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)

APTT	**Dog**	*Blood*	*Exercise*	●P(Cit): mildly decreased by training of sled dogs(*Krogh et al. 2014*)
APTT	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
APTT	**Dog**	*Blood*	*Other technical*	●P(Cit): ~same results by direct venipuncture and by catheter after 24h(*Maeckelbergh and Acierno 2008*)
APTT	**Dog**	*Blood*	*Other technical*	●B(Cit): not different for up to 3d in specimens from in-dwelling jugular catheter and direct venipuncture(*Kielb Basile et al. 2021*)
APTT	**Dog**	*Blood*	*Other technical*	●P(Cit): independent of diameter of catheter(*Bauer et al. 2011*)
APTT	**Dog**	*Blood*	*Other technical*	●P(Cit): not different in arterial & venous specimen(*Palsgaard-Van Lue et al. 2007*)
APTT	**Dog**	*Blood*	*Stability*	●P(Cit): unchanged for 2d at 24°C ; moderate increase from day 2at 4°C(*Furlanello et al. 2006*)
APTT	**Dog**	*Blood*	*Stability*	●P(Cit): decreased in some specimens during storage at-70°C for 6mth(*Bateman et al. 1999*)
APTT	**Dog**	*Blood*	*Stability*	●P(Cit): stable 1d at room temp; prolonged after 2d at room temp & 3-7mth at -20C (*Rizzo et al. 2008*)
APTT	**Dog**	*Blood*	*Stability*	●P(Cit) & P (EDTA): same results if analyzed within 1h; P(Cit) stable 24h at room temp, 4 & -80°C; P (EDTA) increased from 2nd h(*Ceron et al. 2008*)
APTT	**Dog**	*Blood*	*Stability*	●P(Cit): ~10-15% decrease in blood stored 24 or 48h at room temp.(*Maunder et al. 2012*)
APTT	**Dog**	*Blood*	*Stability*	●P(Cit): stable up to 48h at 4°C & room temp; & 24h if centrifugation delayed(*Smalko et al. 1985*)
APTT	**Dog**	*Blood*	*Time variability*	●P(Cit): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
ASAT/AST	**Dog**	*Blood*	*Anticoagulant*	●S: higher than P(Hep)(*Thoresen et al. 1992*)
ASAT/AST	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): ~not different(*Granat et al. 2017*)
ASAT/AST	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*Leard et al. 1990*)
ASAT/AST	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*O'Neill and Feldman 1989*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●S: transiently increased 24h after 5h anesthesia with isoflurane or sevoflurane(*Yuan et al. 2012*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●S: not changed after 2-13wk phenobarbital(*Foster et al. 2000*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●P(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient increase by ototopical dexamethasone(*Abraham et al. 2005*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●S: ~x2 after 3wk amiodarone(*Bicer et al. 2002*)
ASAT/AST	**Dog**	*Blood*	*Drugs*	●S: ~not different by 2x5mg/kg/d phenobarbital for 27wk (*Muller et al. 2000*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●S: no effect of 21 km race at 13 km/h(*Sanders and Bloor 1975*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●P(Hep): unchanged for 24h after 1 h race at 9 km/h in untrained Beagles(*Chanoit et al. 2002*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●P(EDTA): moderate increase after race in Greyhounds(*Snow et al. 1988*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●S: increased by 5d endurance sled race(*McKenzie et al. 2007*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●S: increased during & after long distance sled race(*Hinchcliff et al. 1993*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●S: x2 increase 1d after exercise in Greyhounds(*Lucas et al. 2015*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●S: increased after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
ASAT/AST	**Dog**	*Blood*	*Exercise*	●P(Hep): not different up to 30 min after agility test(*Rovira et al. 2007*)
ASAT/AST	**Dog**	*Blood*	*Food*	●S: not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
ASAT/AST	**Dog**	*Blood*	*Food*	●S: ~30% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
ASAT/AST	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
ASAT/AST	**Dog**	*Blood*	*Food*	●P(?): not different after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
ASAT/AST	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
ASAT/AST	**Dog**	*Blood*	*Food*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)

ASAT/AST	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
ASAT/AST	**Dog**	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
ASAT/AST	**Dog**	*Blood*	*Other biological*	●P(Hep): 25 to 50% higher after 5 & 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
ASAT/AST	**Dog**	*Blood*	*Other biological*	●S: ~not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
ASAT/AST	**Dog**	*Blood*	*Other biological*	●P(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
ASAT/AST	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
ASAT/AST	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
ASAT/AST	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
ASAT/AST	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 10 & 5% differences >TEa(*Guarino et al. 2022*)
ASAT/AST	**Dog**	*Blood*	*Stability*	●S: unchanged if centrifugation delayed up to 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
ASAT/AST	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
ASAT/AST	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
ASAT/AST	**Dog**	*Blood*	*Stability*	●S: increased if centrifugation delayed ≥1h(*Friedel and Mattenheimer 1970*)
ASAT/AST	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
ASAT/AST	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
ASAT/AST	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)
ASAT/AST	**Dog**	*Blood*	*Transport*	●S: not different after a 1d flight and road transport(*Liang et al. 2018*)
ASAT/AST	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)
ASAT/AST	**Dog**	*Prostatic fluid*	*Stability*	●PrFl:decreased after 7d at -18°C(*Umbach et al. 2019*)
Atrial NP	**Dog**	*Blood*	*Drugs*	●B(EDTA+aprotinin): ~not changed after xylazine(*Talukder et al. 2009*)
Atrial NP	**Dog**	*Blood*	*Drugs*	●B(EDTA+aprotinin): increased by medetomidine(*Talukder et al. 2009*)
Atrial NP	**Dog**	*Blood*	*Time variability*	●B(EDTA+aprotinin): not different during acclimatization to repeated blood sampling on 6wk(*Slaughter et al. 2002*)
Basophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Basophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Basophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
Basophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 5wk exposure to electromagnetic radiations from mobile phone; decreased on 10th wk(*Dong et al. 2022*)
Basophils	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Basophils	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Basophils	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Basophils	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
Bicarbonates	**Dog**	*Blood*	*Anticoagulant*	●B(Hep): decreased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
Bicarbonates	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Bicarbonates	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Bicarbonates	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Bicarbonates	**Dog**	*Blood*	*Drugs*	●B(Hep): isoflurane anesthetized dogs; not different after injection of 15 mL/kg hydroxyethylstarch in saline or a polyionic solution(*Adamik et al. 2018*)
Bicarbonates	**Dog**	*Blood*	*Drugs*	●B: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Bicarbonates	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased after 2wk prednisone (2x0.55 mg/kg/d)(*Corrigan et al. 2010*)
Bicarbonates	**Dog**	*Blood*	*Drugs*	●B: not changed after charcoal/propylene glycol/glycerol(*Burkitt et al. 2005*)
Bicarbonates	**Dog**	*Blood*	*Food*	●P(?): not different after 12d fasting(*Lemieux and Plante 1968*)

Bicarbonates	**Dog**	*Blood*	*Food*	●B(Hep): lower in 24h than in 4h post-prandial specimens(*Lawler et al. 1992*)
Bicarbonates	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Bicarbonates	**Dog**	*Blood*	*Other biological*	●B: ~10% increase after CO_2 abdominal insufflation(*Duerr et al. 2008*)
Bicarbonates	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Bicarbonates	**Dog**	*Blood*	*Other technical*	●B(Hep): not different with cold and warm cartridges of an electrochemical POCT(*Looney et al. 1998*)
Bicarbonates	**Dog**	*Blood*	*Sampling*	●B(Hep): higher in venous than arterial blood(*Lawler et al. 1992*)
Bicarbonates	**Dog**	*Blood*	*Sampling*	●P(Hep): not different in jugular and bone marrow specimens(*Ackert et al. 2019*)
Bicarbonates	**Dog**	*Blood*	*Sampling*	●B: mildly lower in carotid artery than cephalic vein(*Ilkiw et al. 1991*)
Bicarbonates	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 5 & 10 % differences >TEa(*Guarino et al. 2022*)
Bicarbonates	**Dog**	*Blood*	*Stability*	●B(Hep): not different after up to 6h storage in ice in plastic syringes(*Rezende et al. 2007*)
Bicarbonates	**Dog**	*Blood*	*Stability*	●B(Hep): ~ stable up to 30 min at room temp. in sealed tubes (*Richey et al. 2004*)
Bicarbonates	**Dog**	*Blood*	*Stress*	●B(Hep): decreased afte.r 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Bicarbonates	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
Bile acids	**Dog**	*Blood*	*Anticoagulant*	●S: same as P(Hep) & P(Fl), higher than P(Cit) & P(EDTA)(*Ceron et al. 2004*)
Bile acids	**Dog**	*Blood*	*Colour*	●S: decreased by hemolysis >0.5g/L Hb & bilirubin >50mg/L; increased by lipemia(*Solter et al. 1992*)
Bile acids	**Dog**	*Blood*	*Drugs*	●S: unchanged after 10d prednisone 4 mg/kg(*Solter et al. 1994*)
Bile acids	**Dog**	*Blood*	*Drugs*	●S: increased by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
Bile acids	**Dog**	*Blood*	*Drugs*	●S: ~not different by 2x5mg/kg/d phenobarbital for 27wk (*Muller et al. 2000*)
Bile acids	**Dog**	*Blood*	*Drugs*	●S: fasting conc. Increased by 6-8wk ursodesoxycholic acid; postprandial conc. unchanged(*Deitz et al. 2015*)
Bile acids	**Dog**	*Blood*	*Drugs*	●S: similar results after stimultation by meal or ceruletide(*Bridger et al. 2008*)
Bile acids	**Dog**	*Blood*	*Food*	●S: paradoxically increased in some fasting dogs before a meal(*Xenoulis et al. 2022*)
Bile acids	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Bile acids	**Dog**	*Blood*	*Food*	●S: unconjugated BA still increased 8h after meal(*Ruaux et al. 2002*)
Bile acids	**Dog**	*Blood*	*Stability*	●S & P(Hep): same results; decreased if centrifugation delayed 1d; irregularly changed in separated S or P(Hep)(*Thoresen et al. 1992*)
Bilirubin	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): not different(*Granat et al. 2017*)
Bilirubin	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep) & P(EDTA), higher than P(Cit), lower than P(Fl)(*Ceron et al. 2004*)
Bilirubin	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
Bilirubin	**Dog**	*Blood*	*Colour*	●P(EDTA)&S: increased in lipemic specimens(*Bonatto et al. 2021*)
Bilirubin	**Dog**	*Blood*	*Colour*	●S: changes <10% by Hb up to 4g/L; increased by TG up to 6g/L(*Jacobs et al. 1992*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient increase after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●S: unchanged up to 2wk after 5h anesthesia with isoflurane or sevoflurane(*Yuan et al. 2012*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●S: not changed after 2-13wk phenobarbital(*Foster et al. 2000*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●S: ~not different by 2x5mg/kg/d phenobarbital for 27wk (*Muller et al. 2000*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●S: not different 1mth after ionic-iodinated , nonionic-iodinated & gadolinium dimeglumine contrast media(*Pollard et al. 2008*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●S: not different after up to 52wk phenobarbital in epileptic dogs(*Chauvet et al. 1995*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●S: ~x10 from 1h after 7.5 ml/kg Hb-glutamer, back to base after 5d(*Kerl and Langdon 2007*)
Bilirubin	**Dog**	*Blood*	*Drugs*	●S: unchanged after 6-8wk ursodesoxycholic acid(*Deitz et al. 2015*)

Bilirubin	**Dog**	*Blood*	*Exercise*	●S: unchanged by 5d endurance sled race(*McKenzie et al. 2007*)
Bilirubin	**Dog**	*Blood*	*Exercise*	●S: unchanged during long distance sled race(*Hinchcliff et al. 1993*)
Bilirubin	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Bilirubin	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Bilirubin	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Bilirubin	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Bilirubin	**Dog**	*Blood*	*Food*	●S: ~not different after food restriction(*Takamatsu et al. 2015*)
Bilirubin	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Bilirubin	**Dog**	*Blood*	*Other biological*	●P(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
Bilirubin	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Bilirubin	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Bilirubin	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Bilirubin	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 18 & 28 % differences >TEa(*Guarino et al. 2022*)
Bilirubin	**Dog**	*Blood*	*Stability*	●S & P(Hep): same results; unchanged if centrifugation delayed up to 3d in S &2d in P(Hep) ; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Bilirubin	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Bilirubin	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Bilirubin	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Bilirubin	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; increased at arrival & back to base from 1wk of re-housing(*Ochi et al. 2016*)
Bilirubin	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)
Bilirubin	**Dog**	*Urine*	*Colour*	●U: dipstick results higher in dark pink or red urines(*Vientos-Plotts et al. 2018*)
Bleeding time	**Dog**	*Blood*	*Drugs*	● not different up to 12h after acepromazine or xylazine administration(*Sutil et al. 2017*)
Bleeding time	**Dog**	*Blood*	*Other technical*	● shorter with neonatal than junior, than adult model lancets(*Aumann et al. 2013*)
Blood	**Dog**	*Feces*	*Drugs*	●F: increased after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Blood	**Dog**	*Feces*	*Food*	●F: no effect of diet by o-tolidine methods; false positives by guiac if meat based diet(*Rice and Ihle 1994*)
Blood	**Dog**	*Urine*	*Colour*	●U: dipstick false positives in pink to red and in yellow urines(*Vientos-Plotts et al. 2018*)
Blood	**Dog**	*Urine*	*Other technical*	●U: false positives due to food contamination & estrus cycles in females(*Aulbach et al. 2015*)
Blood	**Dog**	*Urine*	*Sampling*	●U: false positives with dipstick if semen contamination(*Prober et al. 2010*)
BNP	**Dog**	*Blood*	*Drugs*	●S: ~not different after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
BNP	**Dog**	*Blood*	*Drugs*	●B(EDTA+antiproteases): increased by chronic treatment with doxorubicin(*Alves de Souza and Camacho 2006*)
BNP	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased up to 24h and 12h after Isotonic crystalloid and colloid, but not hypertonic saline rehydration solutions(*Khoo et al. 2019*)
BNP	**Dog**	*Blood*	*Food*	●P(Hep): not different in dogs eating traditioal and non traditional grain-free diets(*Owens et al. 2023*)
BNP	**Dog**	*Blood*	*Stability*	●S: Increases ~16% freezing -20°C
BNP	**Dog**	*Blood*	*Stability*	●S: decreases ~45% in 24h and ~65% in 48h at 22°C(*Collins et al. 2010*)
BNP	**Dog**	*Blood*	*Stability*	●P(EDTA): unstability at room temp reduced but not eliminated by protease inhibitor(*Connolly et al. 2011*)
BNP	**Dog**	*Blood*	*Stability*	●P(?+Protease inhibitor): unchanged up to 72h; decreased from 30min in S; not different after up to 4 freeze-thaw cycles(*Hezzell et al. 2015*)
Calcium (ionized)	**Dog**	*Blood*	*Anticoagulant*	●B(Hep): intensely decreased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
Calcium (ionized)	**Dog**	*Blood*	*Anticoagulant*	●S: mildly lower in P(Hep), impossible in P(EDTA), P(Fl), P(Cit)(*Ceron et al. 2004*)
Calcium (ionized)	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): higher than P(ACD)(*Callan et al. 2009*)
Calcium (ionized)	**Dog**	*Blood*	*Anticoagulant*	●B(non anticoagulated) and B(Hep 40 IU/mL): same results; ~20% lower when higher heparin concentration (150IU/ml)(*Tappin et al. 2008*)

Calcium (ionized)	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Calcium (ionized)	**Dog**	*Blood*	*Drugs*	●P(Hep): isoflurane anesthetized dogs; not different for 3hrs after injection of 15 mL/kg hydroxyethylstarch in saline or a polyionic solution(*Adamik et al. 2018*)
Calcium (ionized)	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 7wk prednisolone(*Kovalik et al. 2012*)
Calcium (ionized)	**Dog**	*Blood*	*Food*	●P(Hep): not different after 8wk diet supplementation with calcidiol(*Backus and Foster 2021*)
Calcium (ionized)	**Dog**	*Blood*	*Food*	●P(Hep): unchanged by overnight fasting(*Brainard et al. 2007*)
Calcium (ionized)	**Dog**	*Blood*	*Other biological*	●S: not different on day following knee surgery and 2mth later(*Clements et al. 1995*)
Calcium (ionized)	**Dog**	*Blood*	*Other biological*	●P(?): not different in dogs>10 yr-old and 2-5 yr-old(*Aguilera-Tejero et al. 1998*)
Calcium (ionized)	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): not different(*Bachmann et al. 2018*)
Calcium (ionized)	**Dog**	*Blood*	*Other technical*	●B(Hep): not different with cold and warm cartridges of an electrochemical POCT(*Looney et al. 1998*)
Calcium (ionized)	**Dog**	*Blood*	*Stability*	●B(Hep): not different if sampled aerobically or non aerobically and analyzed within 10 min; decreased at 48h(*Brennan et al. 2006*)
Calcium (ionized)	**Dog**	*Blood*	*Stability*	●B(Hep): not different up to 9h at 4°C; then decreased(*Szenci et al. 1991*)
Calcium (ionized)	**Dog**	*Blood*	*Stability*	●S(anaerobically): stable for 24h at 22ºC, 48h at 4ºC, 11wk at -20°C(*Unterer et al. 2004*)
Calcium (ionized)	**Dog**	*Blood*	*Stability*	●S: decreased by exposure to air(*Unterer et al. 2004*)
Calcium (ionized)	**Dog**	*Blood*	*Time variability*	●P(Hep): no seasonal effect in Scotland(*Hurst et al. 2020*)
Calcium (total)	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep), impossible in P(EDTA), P(FI), P(Cit)(*Ceron et al. 2004*)
Calcium (total)	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results(*Thoresen et al. 1992*)
Calcium (total)	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
Calcium (total)	**Dog**	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); ~not different after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Calcium (total)	**Dog**	*Blood*	*Colour*	●S: changes <5% by Hb up to 4g/L, Bilirubin up to 600mg/L & TG up to 6g/L(*Jacobs et al. 1992*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●S: not different after 7wk prednisolone(*Kovalik et al. 2012*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●S/P(?): ~not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●S: not different after 7wk amiodarone(*Bicer et al. 2002*)
Calcium (total)	**Dog**	*Blood*	*Drugs*	●S: not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
Calcium (total)	**Dog**	*Blood*	*Exercise*	●S: decreased by 5d endurance sled race(*McKenzie et al. 2007*)
Calcium (total)	**Dog**	*Blood*	*Exercise*	●S: ~unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Calcium (total)	**Dog**	*Blood*	*Exercise*	●S: transient decrease during long distance sled race(*Hinchcliff et al. 1993*)
Calcium (total)	**Dog**	*Blood*	*Exercise*	●S: moderate increase 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Calcium (total)	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Calcium (total)	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Calcium (total)	**Dog**	*Blood*	*Exercise*	●S: not different after 7km race of Greyhounds(*Tharwat et al. 2014*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: slightly lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: ~not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)

Calcium (total)	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: mildly lower when fed a plant-based than an animal product-based diet(*Swanson et al. 2004*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: decreased in 25% of cases of starvation(*Pointer et al. 2013*)
Calcium (total)	**Dog**	*Blood*	*Food*	●P(?): slightly higher after 6 than 16h fasting(*Matsuzawa and Sakazume 1994*)
Calcium (total)	**Dog**	*Blood*	*Food*	●S: decreased after food restriction(*Takamatsu et al. 2015*)
Calcium (total)	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Calcium (total)	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Calcium (total)	**Dog**	*Blood*	*Other biological*	●S: mildly decreased on day following knee surgery; back to base 2mth later(*Clements et al. 1995*)
Calcium (total)	**Dog**	*Blood*	*Other technical*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Calcium (total)	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Calcium (total)	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Calcium (total)	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Calcium (total)	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Calcium (total)	**Dog**	*Blood*	*Stability*	●S: decrease <20 &10 % in 4d at 4°C & room temp; <5% decrease when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Calcium (total)	**Dog**	*Blood*	*Stability*	●S & P(Hep): decreased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Calcium (total)	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Calcium (total)	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Calcium (total)	**Dog**	*Blood*	*Time variability*	●S : no seasonal effect in Scotland(*Hurst et al. 2020*)
Calcium (total)	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Calcium (total)	**Dog**	*Hair*	*Sampling*	●Hair: higher in dark than light hair; higher in dogs fed mixed diets than in dogs fed raw or dry diets(*Rosendahl et al. 2022*)
Calcium (total)	**Dog**	*Prostatic fluid*	*Stability*	●PrFl:not different after 7d at -18°C(*Umbach et al. 2019*)
Calcium (total)	**Dog**	*Saliva*	*Exercise*	●Saliva: decreased in running Huskies in mid-distance races(*Templeman et al. 2020*)
Calcium (total)	**Dog**	*Saliva*	*Stability*	●Saliva: time-related decrease during storage at -20°C(*Ricci et al. 2018*)
Calcium (total)	**Dog**	*Urine*	*Food*	●dU: decreased ~40% after 24h fasting(*Lulich et al. 1991*)
Calcium (total)	**Dog**	*Urine*	*Food*	●U: Ca/Creatinine not different up to 8h after meal(*Carr et al. 2020*)
Calprotectin	**Dog**	*Feces*	*Food*	●F: decreased from 2nd week feeding with a quercetin, bromelain, and Lentinula edodes additive(*Atuahene et al. 2023*)
Cells	**Dog**	*BAL*	*Sampling*	●BAL: different from tracheal wash in 2/3 of cases(*Hawkins et al. 1995*)
Cells	**Dog**	*BAL*	*Sampling*	●BAL: not different in the different lung lobes(*Rebar et al. 1980*)
Cells	**Dog**	*BAL*	*Sampling*	●BAL: higher when collected with succion pump than syringe(*Woods et al. 2014*)
Cells	**Dog**	*CSF*	*Anticoagulant*	●CSF: total cell count and morphology not different in specimens collected in plain or EDTA tubes(*Koch et al. 2019*)
Cells	**Dog**	*CSF*	*Sampling*	●CSF: cell morphology less altered by serum addition than by saline or hydroxyethl starch(*Peterson et al. 2020*)
Cells	**Dog**	*CSF*	*Stability*	●CSF: 31 & 57% decrease of identifiable cells after 24 and 48h at 4°C; stability increased by serum addition(*Bienzle et al. 2000*)
Cells	**Dog**	*CSF*	*Stability*	●CSF(EDTA): better stability in specimens with addition of 1 drop of 10% buffered formalin(*Montanes Sancho et al. 2022*)
Cells	**Dog**	*CSF*	*Stability*	●CSF: flow cytometry count ~stable up to 3d in Transfix/EDTA storage tubes; microscopic aspect altered(*Meier et al. 2020*)
Cells	**Dog**	*CSF*	*Stability*	●CSF: decreased from 12h at 4°C; stabilized by fetal calf serum or hexastarch(*Fry et al. 2006*)
Cells	**Dog**	*Synovia*	*Sampling*	●Synovia: not different in 4 repeated specimens at 3wk interval; not different according to joint(*Berg et al. 2009*)

Cells	**Dog**	*Synovia*	*Sampling*	●Synovia: higher in shoulder & stifle than in carpal joint(*Fernandez et al. 1983*)
Cells	**Dog**	*Urine*	*Other technical*	●U: same results when centrifuged at low speed for 5 min and high speed for 45s(*Layssol et al. 2009*)
Ceruloplasmin	**Dog**	*Blood*	*Drugs*	●S: unchanged after ovariohysterectomy with or without carprofen or meloxicam(*Kum et al. 2013*)
Ceruloplasmin	**Dog**	*Blood*	*Exercise*	●P(Hep): decreased after repeated strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
Ceruloplasmin	**Dog**	*Blood*	*Exercise*	●S: moderately increased after endurance sled race(*Kenyon et al. 2011*)
Ceruloplasmin	**Dog**	*Blood*	*Exercise*	●P(Hep): ~25% decrease after 11d race in sled dogs(*DiSilvestro et al. 2005*)
Ceruloplasmin	**Dog**	*Blood*	*Other biological*	●S: not different after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
cfDNA	**Dog**	*Blood*	*Exercise*	●S: decreased during and after race of sled dogs(*Devall et al. 2018*)
cfDNA	**Dog**	*CSF*	*Sampling*	●S: not different in large (3mL) and small (0.5 mL) specimens(*Stark et al. 2020*)
Chloride	**Dog**	*Blood*	*Anticoagulant*	●B(Hep): increased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
Chloride	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep), P(EDTA), P(Fl); lower in P(Cit)(*Ceron et al. 2004*)
Chloride	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD): lower than P(Hep)(*Granat et al. 2017*)
Chloride	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): not different(*Degen 1986*)
Chloride	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*Leard et al. 1990*)
Chloride	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Chloride	**Dog**	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); higher after LipoClear or hih speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Chloride	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis & hyperproteinemia(*Bernardini et al. 2009*)
Chloride	**Dog**	*Blood*	*Colour*	●S: unchanged or moderately increased by hemolysis according to analyzer/method(*O'Neill and Feldman 1989*)
Chloride	**Dog**	*Blood*	*Colour*	●S: changes <5% by Hb up to 4g/L & TG up to 6g/L; decreased by bilirubin(*Jacobs et al. 1992*)
Chloride	**Dog**	*Blood*	*Drugs*	●S: -10% after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)
Chloride	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient decrease after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Chloride	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Chloride	**Dog**	*Blood*	*Drugs*	●P(Hep): isoflurane anesthetized dogs; not different for 3hrs after injection of 15 mL/kg hydroxyethylstarch in saline or a polyionic solution(*Adamik et al. 2018*)
Chloride	**Dog**	*Blood*	*Drugs*	●S: decreased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Chloride	**Dog**	*Blood*	*Drugs*	●P(Hep): not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Chloride	**Dog**	*Blood*	*Drugs*	●S: decreased after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Chloride	**Dog**	*Blood*	*Drugs*	●S: decreased by treatment with torsemide or furosemide(*Potter et al. 2019*)
Chloride	**Dog**	*Blood*	*Drugs*	●S/P: increased after anesthesia in dogs receiving hydroxyethyl starch solutions(*Zersen et al. 2019*)
Chloride	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased after prednisone (2x0.55 mg/kg/d)(*Corrigan et al. 2010*)
Chloride	**Dog**	*Blood*	*Drugs*	●S: still increased 90 min after hypertonic saline solution(*Kim et al. 2020*)
Chloride	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 2wk furosemide or torsemide(*Hori et al. 2007*)
Chloride	**Dog**	*Blood*	*Drugs*	●B(Hep): unchanged after furosemide & moderately decreased after azosemide(*Hori et al. 2008*)
Chloride	**Dog**	*Blood*	*Drugs*	●S: not different after 7wk amiodarone(*Bicer et al. 2002*)
Chloride	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
Chloride	**Dog**	*Blood*	*Drugs*	●S: not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
Chloride	**Dog**	*Blood*	*Exercise*	●S: decreased by 5d endurance sled race(*McKenzie et al. 2007*)
Chloride	**Dog**	*Blood*	*Exercise*	●S: ~unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Chloride	**Dog**	*Blood*	*Exercise*	●S: ~not different during & after long distance sled race(*Hinchcliff et al. 1993*)

Chloride	**Dog**	*Blood*	*Exercise*	●S: not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Chloride	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Chloride	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Chloride	**Dog**	*Blood*	*Exercise*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Chloride	**Dog**	*Blood*	*Food*	●S: not different in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Chloride	**Dog**	*Blood*	*Food*	●S: ~not different in life-long food-restrictced Labradors(*Lawler et al. 2007*)
Chloride	**Dog**	*Blood*	*Food*	●S: increased after food restriction(*Takamatsu et al. 2015*)
Chloride	**Dog**	*Blood*	*Food*	●S: increased when water deprived(*Genetzky et al. 1987*)
Chloride	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Chloride	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Chloride	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Chloride	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Chloride	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): not different(*Bachmann et al. 2018*)
Chloride	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Chloride	**Dog**	*Blood*	*Other technical*	●S or P(Hep): increased by bromide with ISE or colorimetric method(*Rossmeisl et al. 2006*)
Chloride	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Chloride	**Dog**	*Blood*	*Sampling*	●P(Hep): lower in jugular than bone marrow specimens(*Ackert et al. 2019*)
Chloride	**Dog**	*Blood*	*Stability*	●S: stable 4d at 4°C & room temp & when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Chloride	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Chloride	**Dog**	*Blood*	*Stress*	●P(Hep): increased by stress of drug searching(*Strasser et al. 1993*)
Chloride	**Dog**	*Blood*	*Time variability*	●P(Hep): lower in summer(*Strasser et al. 2001*)
Chloride	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in February-March(*Sothern et al. 1993*)
Chloride	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Chloride	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after xylazine(*Talukder et al. 2009*)
Chloride	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after xylazine or medetomidine(*Talukder and Hikasa 2009*)
Chloride	**Dog**	*Urine*	*Drugs*	●U: decreased after furosemide or torsemide treatment(*Potter et al. 2019*)
Chloride	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after medetomidine(*Talukder et al. 2009*)
Chloride	**Dog**	*Urine*	*Food*	●U: increased when water deprived(*Genetzky et al. 1987*)
Cholesterol	**Dog**	*Blood*	*Anticoagulant*	●S: same as P(Hep) & P(Fl), higher than P(Cit) & P(EDTA)(*Ceron et al. 2004*)
Cholesterol	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): ~not different(*Granat et al. 2017*)
Cholesterol	**Dog**	*Blood*	*Anticoagulant*	●S: not different in P(Hep) & P(EDTA), lowen in P(Cit) & P(Fl)(*Ceron et al. 2004*)
Cholesterol	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results; unchanged if centrifugation delayed up to 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Cholesterol	**Dog**	*Blood*	*Colour*	●S(Act): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Cholesterol	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient increase after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: not different after treatment with phenobarbital or phenobarbital + bromide(*Kluger et al. 2008*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: mildly decreased after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: increased from 1wk amiodarone (~x2 at 3wk)(*Bicer et al. 2002*)

Cholesterol	**Dog**	*Blood*	*Drugs*	●S: ~30% increase after 27wk phenobarbital; ~ back to base after 3wk withdrawal(*Gieger et al. 2000*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: decreased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: ~not different after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: decreased from 26wk phenobarbital in epileptic dogs (*Chauvet et al. 1995*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: ~20% decrease after 7.5 ml/kg Hb-glutamer; back to base at 12h(*Kerl and Langdon 2007*)
Cholesterol	**Dog**	*Blood*	*Drugs*	●S: unchanged after 6-8wk ursodesoxycholic acid(*Deitz et al. 2015*)
Cholesterol	**Dog**	*Blood*	*Exercise*	●S: not different during long distance sled race(*Hinchcliff et al. 1993*)
Cholesterol	**Dog**	*Blood*	*Exercise*	●S: not different after strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
Cholesterol	**Dog**	*Blood*	*Exercise*	●P(EDTA): lower in exercising than sedentary dogs(*Downs et al. 1997*)
Cholesterol	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Cholesterol	**Dog**	*Blood*	*Food*	●P(?): decreased in obese dogs by high fiber or high protein diets(*Diez et al. 2004*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Cholesterol	**Dog**	*Blood*	*Food*	●P(Hep): lower in sled dogs fed organohalogen contaminated whale blubber than pork fat(*Sonne et al. 2008*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Cholesterol	**Dog**	*Blood*	*Food*	●P(EDTA): fasting value lower when diet fat content lower; mild post-prandial decrease(*Downs et al. 1997*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: decreased after 3mth food reduction in obese dogs(*Lucena et al. 2020*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: lower after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
Cholesterol	**Dog**	*Blood*	*Food*	●P(?): increased after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
Cholesterol	**Dog**	*Blood*	*Food*	●P(?): not different after 9d fasting; increased after 12d; back to base after refeeding(*Lemieux and Plante 1968*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: decreased by 4wk feeding with fish oil and/or medium-chain triglyceridessupplemented diet(*Jackson and Jewell 2023*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: lower when fed a plant-based than an animal product-based diet(*Swanson et al. 2004*)
Cholesterol	**Dog**	*Blood*	*Food*	●S: not different after high-fat mixed-meal in overweight and lean dogs(*Soder et al. 2016*)
Cholesterol	**Dog**	*Blood*	*Food*	●P(?): lower when fed each 48h than each 12h; no post-prandial change (*Romsos et al. 1978*)
Cholesterol	**Dog**	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●S: increased with body score(*Kolodziejski et al. 2021*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●P(EDTA): ~40% higher in obese than non-obese dogs(*Jeusette et al. 2005*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●P(?): not correlated with obesity(*Sagawa et al. 2002*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●S: ~40-50% higher in obese dogs(*Veiga et al. 2008*)
Cholesterol	**Dog**	*Blood*	*Other biological*	●P(Hep): lower in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Cholesterol	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Cholesterol	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Cholesterol	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Cholesterol	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)

Cholesterol	**Dog**	*Blood*	*Stability*	●S: <5% changes for 3d at 4°C & room temp & when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Cholesterol	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
Cholesterol	**Dog**	*Blood*	*Time variability*	●S: no circadian rhythm in fasted dogs(*Bertolucci et al. 2008*)
Cholesterol	**Dog**	*Blood*	*Time variability*	●S: ~0.3 mmol/L higher in June than in Dec-Jan(*Walker et al. 2022*)
Cholesterol	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Cholesterol	**Dog**	*Blood*	*Transport*	●S: not different after a 1d flight and road transport; decreased on the following days(*Liang et al. 2018*)
Cholesterol	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)
Cholinesterase	**Dog**	*Blood*	*Anticoagulant*	●B, B(Hep), B(Cit), B(Fl): same results for ACE; B, B(Hep), higher results than B(Cit), B(Fl) for BCE; ACE & BCE stable 2wk & 3d at 25 and 4°C(*Tecles et al. 2002*)
Cholinesterase	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Chromogranin	**Dog**	*Blood*	*Stress*	●S: not different in dogs accustomed to hospital and sampling procedures than in non accustomed dogs(*Srithunyarat et al. 2018*)
Chromogranin	**Dog**	*Saliva*	*Stress*	●S: ~3 times lower in dogs accustomed to hospital and sampling procedures than in non accustomed dogs(*Srithunyarat et al. 2018*)
Chromogranin	**Dog**	*Saliva*	*Time variability*	●Saliva: no circadian rhythm(*Kanai et al. 2008*)
Citrulline	**Dog**	*Blood*	*Food*	● P(Hep): increased 4h after meal(*Dahan et al. 2016*)
Citrulline	**Dog**	*Blood*	*Time variability*	● P(Hep): no circadian rhythm(*Dahan et al. 2016*)
CK	**Dog**	*Blood*	*Anticoagulant*	●S: higher than P(Hep)(*Thoresen et al. 1992*)
CK	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD): lower than P(Hep)(*Granat et al. 2017*)
CK	**Dog**	*Blood*	*Anticoagulant*	●P(Hep): same results as P(EDTA), P(Fl/Ox), P(Cit), lower than in S(*Aktas et al. 1994*)
CK	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*Leard et al. 1990*)
CK	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*O'Neill and Feldman 1989*)
CK	**Dog**	*Blood*	*Colour*	●S: changes <10% by Hb up to 4g/L, Bilirubin up to 600mg/L & TG up to 6g/L(*Jacobs et al. 1992*)
CK	**Dog**	*Blood*	*Drugs*	●P(Hep): increased up to 2d after IM injection(*Aktas et al. 1995*)
CK	**Dog**	*Blood*	*Drugs*	●S: very intense increase from 6h after IM injection of medical preparations; back to base after 2 to 3d; unchanged after IM of saline(*Lewis and Rhodes 1978*)
CK	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
CK	**Dog**	*Blood*	*Drugs*	●P(Hep): increased in some dogs after halothane anesthesia; unchanged after propofol(*Aktas et al. 1997*)
CK	**Dog**	*Blood*	*Drugs*	●S: total CK and CK-M decreased at end of 12h ketamine anesthesia; then stable up to 48h(*Franco et al. 2018*)
CK	**Dog**	*Blood*	*Exercise*	●S: intensely increased by 5d endurance sled race(*McKenzie et al. 2007*)
CK	**Dog**	*Blood*	*Exercise*	●S: ~50% increase after 21 km race at 13 km/h(*Sanders and Bloor 1975*)
CK	**Dog**	*Blood*	*Exercise*	●P(EDTA): ~2 fold increase after season of recreational musching; back to base at end of season(*Leggieri et al. 2019*)
CK	**Dog**	*Blood*	*Exercise*	●S: more increased (~x10) at mid-race than after race of sled dogs(*Devall et al. 2018*)
CK	**Dog**	*Blood*	*Exercise*	●P(?): resting activity unchanged or little increased by 24wk training in sled dogs(*Querengaesser et al. 1994*)
CK	**Dog**	*Blood*	*Exercise*	●S: ~50% increase 1-3 h after electromyography(*Strain et al. 1998*)
CK	**Dog**	*Blood*	*Exercise*	●P(Hep): x2.5 3h after 1 h-race at 9 km/h in untrained Beagles(*Chanoit et al. 2002*)
CK	**Dog**	*Blood*	*Exercise*	●S: increased during & after long distance sled race(*Hinchcliff et al. 1993*)
CK	**Dog**	*Blood*	*Exercise*	●S: increased after strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
CK	**Dog**	*Blood*	*Exercise*	●P(Hep): not different up to 30 min after agility test(*Rovira et al. 2007*)
CK	**Dog**	*Blood*	*Exercise*	●S: x5 increase 1d after exercise in Greyhounds(*Lucas et al. 2015*)
CK	**Dog**	*Blood*	*Exercise*	●S: increased after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
CK	**Dog**	*Blood*	*Exercise*	●P(Hep): increased 4h after agility test in untrained dogs, not in trained ones(*Baltzer et al. 2012*)

CK	Dog	*Blood*	*Exercise*	●P(?): resting activity increased at beginning of training, back to base after 24wk in sled dogs(*Querengaesser et al. 1994*)
CK	Dog	*Blood*	*Food*	●S: ~40% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
CK	Dog	*Blood*	*Food*	●P(Hep): lower in sled dogs fed organohalogen contaminated whale blubber than pork fat(*Sonne et al. 2008*)
CK	Dog	*Blood*	*Food*	●S: not different when fed a low selenium diet(*van Zelst et al. 2016*)
CK	Dog	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
CK	Dog	*Blood*	*Food*	●S: increased by 1 or 2wk phytosterols administration(*Borin-Crivellenti et al. 2021*)
CK	Dog	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
CK	Dog	*Blood*	*Other biological*	●P(Hep): ~x4 in 1-6 mth-old than in > 1yd-old(*Aktas et al. 1994*)
CK	Dog	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
CK	Dog	*Blood*	*Other biological*	●P(Hep): ~50% higher in dogs <10 kg than in larger ones(*Aktas et al. 1994*)
CK	Dog	*Blood*	*Other technical*	●P(Hep): up to x2.5 increase in 30 to 70% cases of incorrect venepuncture(*Fayolle et al. 1992*)
CK	Dog	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
CK	Dog	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
CK	Dog	*Blood*	*Stability*	●S: increased if centrifugation delayed 2d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
CK	Dog	*Blood*	*Stability*	●P(Hep): stable 1wk at 4°C & 1 mth at -20°C, then decreased(*Aktas et al. 1994*)
CK	Dog	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
CK	Dog	*Blood*	*Stability*	●S: not different after up to 2d at room temp, 4°C, -10°C, -70°C(*Wilson and Wiltrout 1976*)
CK	Dog	*Blood*	*Stability*	●P(Hep): not different if centrifugation delayed up to 3.5h; increased by hemolysis(*Payrière et al. 1991*)
CK	Dog	*Blood*	*Stability*	●S: increased <~10% in 2d at 4°C & room temp &+50% when centrifuged after 2d post transport(*Fontaine et al. 1986*)
CK	Dog	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
CK	Dog	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
CK	Dog	*Blood*	*Time variability*	●P(Hep): higher in summer(*Strasser et al. 2001*)
CK	Dog	*Blood*	*Transport*	●S: intensely increased after a 1d flight and road transport(*Liang et al. 2018*)
CK	Dog	*CSF*	*Colour*	●CSF: altered from $6x10^6$ RBC/L iatrogenic blood contamination(*Brune et al. 2023*)
CK	Dog	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
CK	Dog	*CSF*	*Sampling*	●CSF: different in cerebellomedullary and lumber cisternae in dogs with neurologic diseases(*Lampe et al. 2020*)
Clusterin	Dog	*Blood*	*Other biological*	●P(?): ~20% decrease by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
CO2 (total)	Dog	*Blood*	*Colour*	●S: unchanged or decreased by hemolysis according to analyzer/method(*O'Neill and Feldman 1989*)
CO2 (total)	Dog	*Blood*	*Colour*	●S: <20% bias in hyperlipidemic specimens (dry chemistry); lower after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
CO2 (total)	Dog	*Blood*	*Drugs*	●S: +20% after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)
CO2 (total)	Dog	*Blood*	*Drugs*	●S: not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
CO2 (total)	Dog	*Blood*	*Other technical*	●P(Hep): lower results in up to 11mth expired tubes(*Domingos et al. 2012*)
CO2 (total)	Dog	*Blood*	*Sampling*	●B: mildly lower in carotid artery than cephalic vein(*Ilkiw et al. 1991*)
CO2 (total)	Dog	*Blood*	*Sampling*	●B(Hep): higher in venous than arterial blood; lower in 24h than in 4h post-prandial specimens(*Lawler et al. 1992*)
CO2 (total)	Dog	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
CO2 (total)	Dog	*Blood*	*Stress*	●B(Hep): decrceasd after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Cobalamin	Dog	*Blood*	*Food*	●S: ~10% decrease 4 & 8h after meal in 12h fasted dogs(*Saver et al. 2021*)
Cobalamin	Dog	*Blood*	*Stability*	●S: time-related decrease during storage at room temp. for 5d (-14%); stable at 6°C; no effect of light on stability(*Kempf et al. 2018*)
Collagen CTX-I	Dog	*Blood*	*Food*	●S: not different in dogs fed diet enriched with protein, calcium, n-3 fatty acids & antioxidants for up to 18 mth(*Schoenherr et al. 2010*)

Collagen NTX	**Dog**	*Urine*	*Drugs*	●U: dose-related increase during glucocorticoid treatment; more intense in first month(*Adamany et al. 2017*)
Copper	**Dog**	*Blood*	*Drugs*	●S: increased after 7d 0.5 mg/kg BW, q12h not after 2 mg/kg BW, q12h prednisolone(*Adamama-Moraitou et al. 2005*)
Copper	**Dog**	*Blood*	*Food*	●S: not different when fed a low selenium diet(*van Zelst et al. 2016*)
Copper	**Dog**	*Prostatic fluid*	*Stability*	●PrFl:not different after 7d at -18°C(*Umbach et al. 2019*)
Creatinine	**Dog**	*Blood*	*Anticoagulant*	●S: not different in P(Hep), P(EDTA) & P(Cit), lower in P(Fl) (*Ceron et al. 2004*)
Creatinine	**Dog**	*Blood*	*Colour*	●S: decreased by hemolysis(*Leard et al. 1990*)
Creatinine	**Dog**	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); higher after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Creatinine	**Dog**	*Blood*	*Colour*	●S: Jaffe and enzyme method results decreased by bilirubin (*Jacobs et al. 1991*)
Creatinine	**Dog**	*Blood*	*Colour*	●P(EDTA): increased by intense hemolysis(*Agudelo et al. 2014*)
Creatinine	**Dog**	*Blood*	*Colour*	●S: changes <10% by Hb up to 4g/L; decreased by Bilirubin & TG(*Jacobs et al. 1992*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): unchanged 1d after carprofen or meloxicam + anesthesia with ketamine+diazepam(*Crandell et al. 2004*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: increased by 8wk high dose trimethoprim+sulfadiazine(*Lording and Bellamy 1978*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient decrease after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): unchanged by sedation with atropine + detomidine(*Gasthuys et al. 1987*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: not different after 7wk prednisolone(*Kovalik et al. 2012*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: ~not different after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): 10-20% increase after 2wk furosemide or torsemide(*Hori et al. 2007*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: not different after treatment by furosemide; increased by torsemide(*Potter et al. 2019*)
Creatinine	**Dog**	*Blood*	*Drugs*	●B(Hep): unchanged after furosemide & azosemide(*Hori et al. 2008*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: not different 1mth after ionic-iodinated , nonionic-iodinated & gadolinium dimeglumine contrast media(*Pollard et al. 2008*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S/P: decreased after anesthesia in dogs receiving hydroxyethyl starch solutions(*Zersen et al. 2019*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): mildly decreased after 2h of hetastarch infusion; no change with mannitol(*Robinson et al. 2011*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: ~20% decrease after 7.5 ml/kg Hb-glutamer; back to base at 1-3d(*Kerl and Langdon 2007*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: ~not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: moderate decrease after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: unchanged after 16wk hydrocortisone(*Smets et al. 2012*)
Creatinine	**Dog**	*Blood*	*Drugs*	●S: not different up to 2d after halothane anesthesia & elective surgery(*Lobetti and Lambrechts 2000*)
Creatinine	**Dog**	*Blood*	*Drugs*	●P(Hep): ~10% higher 24h after sevoflurane anesthesia in dogs perfused with aminoacids before anesthesia(*Clark-Price et al. 2015*)
Creatinine	**Dog**	*Blood*	*Exercise*	●P(Hep): ~10% decrease after 1 h race at 9 km/h in untrained Beagles(*Chanoit et al. 2002*)
Creatinine	**Dog**	*Blood*	*Exercise*	●P(EDTA): moderate increase immediately and 30min after race in Greyhounds(*Snow et al. 1988*)
Creatinine	**Dog**	*Blood*	*Exercise*	●S: unchanged by 5d endurance sled race(*McKenzie et al. 2007*)

Creatinine	**Dog**	*Blood*	*Exercise*	●S: ~unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Creatinine	**Dog**	*Blood*	*Exercise*	●S: not changed during & after long distance sled race(*Hinchcliff et al. 1993*)
Creatinine	**Dog**	*Blood*	*Exercise*	●S: not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Creatinine	**Dog**	*Blood*	*Exercise*	●S: 20% increase after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Creatinine	**Dog**	*Blood*	*Exercise*	●S: not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Creatinine	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Creatinine	**Dog**	*Blood*	*Food*	●P(Hep): ~45% increase 1-4 h after meal of cooked meat; ~unchanged after raw meat and soft-moist food(*Watson et al. 1981*)
Creatinine	**Dog**	*Blood*	*Food*	●P(Hep): ~unchanged after meal of commercial food(*Epstein et al. 1984*)
Creatinine	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Creatinine	**Dog**	*Blood*	*Food*	●P(Hep): ~+15% 4h after meal of dry food(*Evans 1987*)
Creatinine	**Dog**	*Blood*	*Food*	●P(?): increase proportional to alimentary creatine supplementation(*Lowe et al. 1998*)
Creatinine	**Dog**	*Blood*	*Food*	●P(Hep): fasting concentration when fed a creatine supplemented diet (equivalent of commercial cardiac diet); intense post-prandial increase; back to base after 6h(*Banton et al. 2022*)
Creatinine	**Dog**	*Blood*	*Food*	●S: increased after food restriction(*Takamatsu et al. 2015*)
Creatinine	**Dog**	*Blood*	*Food*	●P(Hep): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Creatinine	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
Creatinine	**Dog**	*Blood*	*Food*	●S: ~10% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Creatinine	**Dog**	*Blood*	*Food*	●S: unchanged by low protein- low phosphate diet(*Polzin et al. 1991*)
Creatinine	**Dog**	*Blood*	*Food*	●P(?): not different after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
Creatinine	**Dog**	*Blood*	*Food*	●S: higher after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Creatinine	**Dog**	*Blood*	*Food*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
Creatinine	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Creatinine	**Dog**	*Blood*	*Food*	●S: mildly lower in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Creatinine	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Creatinine	**Dog**	*Blood*	*Food*	●P(Hep): not different after 8wk diet supplementation with calcidiol(*Backus and Foster 2021*)
Creatinine	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Creatinine	**Dog**	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
Creatinine	**Dog**	*Blood*	*Food*	●S: unchanged by food supplemented with carnitine and fish oil(*Hall et al. 2015*)
Creatinine	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Creatinine	**Dog**	*Blood*	*Other biological*	●P(Hep): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
Creatinine	**Dog**	*Blood*	*Other biological*	●P(Hep): same in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Creatinine	**Dog**	*Blood*	*Other biological*	●S: ~10% decrease by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
Creatinine	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Creatinine	**Dog**	*Blood*	*Other biological*	●S: lower on day following knee surgery; back to base 2mth later(*Clements et al. 1995*)
Creatinine	**Dog**	*Blood*	*Other biological*	●P(EDTA): lower in obese and lean dogs(*Barić Rafaj et al. 2017*)
Creatinine	**Dog**	*Blood*	*Other biological*	●P(?): ~20% lower in dogs>10 yr-old than in 2-5 yr-old(*Aguilera-Tejero et al. 1998*)
Creatinine	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Creatinine	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Creatinine	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Creatinine	**Dog**	*Blood*	*Sampling*	●S: slightly higher in jugular than cephalic vein(*Jensen et al. 1994*)

Creatinine	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Creatinine	**Dog**	*Blood*	*Sampling*	●P(Hep): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
Creatinine	**Dog**	*Blood*	*Stability*	●S: unchanged for 4d at 4°C, increased ~10% per day at room temp & increased ~40% when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Creatinine	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Creatinine	**Dog**	*Blood*	*Stability*	●S & P(Hep): same results; increased if centrifugation delayed 2d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Creatinine	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Creatinine	**Dog**	*Blood*	*Stress*	●P(Hep): increased by stress of drug searching(*Strasser et al. 1993*)
Creatinine	**Dog**	*Blood*	*Stress*	●S: ~15% decrease after heat exposure(*Alhidary et al. 2012*)
Creatinine	**Dog**	*Blood*	*Time variability*	●P(Hep): higher in summer(*Strasser et al. 2001*)
Creatinine	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in June-July (*Sothern et al. 1993*)
Creatinine	**Dog**	*Blood*	*Time variability*	●P(Hep): maximum at the beginning of afternoon, minimum (~10-15% lower) in the middle of night, almost not different in fed and fasted dogs(*Giudicea et al. 2009*)
Creatinine	**Dog**	*Blood*	*Time variability*	●S : no seasonal effect in Scotland(*Hurst et al. 2020*)
Creatinine	**Dog**	*Blood*	*Transport*	●S: decreased after a 1d flight and road transport(*Liang et al. 2018*)
Creatinine	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)
Creatinine	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)
Creatinine	**Dog**	*Urine*	*Drugs*	●U: intensely decreased after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
Creatinine	**Dog**	*Urine*	*Drugs*	●U: intensely decreased (:~4) after xylazine; back to base after ~8h(*Talukder et al. 2009*)
Creatinine	**Dog**	*Urine*	*Drugs*	●U: decreased by xylazine or medetomidine(*Talukder and Hikasa 2009*)
Creatinine	**Dog**	*Urine*	*Drugs*	●U: intense decrease by medetomidine; back to base ~5h(*Talukder et al. 2009*)
Creatinine	**Dog**	*Urine*	*Exercise*	●dU: not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Creatinine	**Dog**	*Urine*	*Exercise*	●U: lower in females after a 5km walk in 30-40 min at 25°C; not significantly in males(*Paslawska et al. 2020*)
Creatinine	**Dog**	*Urine*	*Exercise*	●U: not different from control 30 min after searching exercise of trained military dogs(*Spinella et al. 2023*)
Creatinine	**Dog**	*Urine*	*Exercise*	●U: not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Creatinine	**Dog**	*Urine*	*Food*	●U: increased in urine collected 4 to 8 h after meal; no sex effect(*Uechi et al. 1994*)
Creatinine	**Dog**	*Urine*	*Food*	●dU: unchanged after 24h fasting(*Lulich et al. 1991*)
Creatinine	**Dog**	*Urine*	*Stability*	●U: ~not different after 30d at 4, -20 and -70°C(*Smee et al. 2016*)
Creatinine	**Dog**	*Urine*	*Stability*	●U: not different when stored 4h at 24°C, 12h at 4°C or 3d at -20°C in glass or polypropylene containers(*Moyle et al. 2018*)
Crossmatching	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): prefrrable to S to detect weak positives(*Caudill et al. 2021*)
CRP	**Dog**	*Blood*	*Anticoagulant*	●S, P(Hep): same results; stable 4h at 21°C and 1d at 4°C(*Plickert et al. 2011*)
CRP	**Dog**	*Blood*	*Colour*	●S: no effects of hemolysis, lipemia or bilirubinemia in immunofluorometric assay(*Parra and Ceron 2007*)
CRP	**Dog**	*Blood*	*Colour*	●S(Act): no or minor interference of hemolysis or lipemia(*Hillstrom et al. 2015*)
CRP	**Dog**	*Blood*	*Drugs*	●S: increased after anesthesia+minor surgery(*Saunders et al. 2009*)
CRP	**Dog**	*Blood*	*Drugs*	●B(EDTA): unchanged by carprofen or meloxicam(*Kum et al. 2013*)
CRP	**Dog**	*Blood*	*Exercise*	●S: moderately increased after 2 days of high-intensity exercise(*Wakshlag et al. 2010*)
CRP	**Dog**	*Blood*	*Exercise*	●S: ~x3 after endurance sled race(*Kenyon et al. 2011*)
CRP	**Dog**	*Blood*	*Exercise*	●S: ~x3-4 during & after endurance sled race(*Yazwinski et al. 2013*)
CRP	**Dog**	*Blood*	*Exercise*	●S: transient increase (x3) after hunting; ~back to base after 1h(*Casella et al. 2013*)
CRP	**Dog**	*Blood*	*Exercise*	●S: increased by training of sled dogs(*Krogh et al. 2014*)
CRP	**Dog**	*Blood*	*Exercise*	●S: increased after a 3h-road transport; back to base 24h later(*Fazio et al. 2015*)

CRP	**Dog**	*Blood*	*Exercise*	●P(Hep): ~x2.5 increase at day2 or endurance race(*Spoo et al. 2015*)
CRP	**Dog**	*Blood*	*Exercise*	●S: x5 increase 1d after exercise in Greyhounds(*Lucas et al. 2015*)
CRP	**Dog**	*Blood*	*Exercise*	●S: increased after long distance race in sled dogs(*Fergestad et al. 2016*)
CRP	**Dog**	*Blood*	*Exercise*	●S: decreased after 7km race of Greyhounds(*Tharwat et al. 2014*)
CRP	**Dog**	*Blood*	*Food*	●S: not different after 3mth food reduction in obese dogs(*Lucena et al. 2020*)
CRP	**Dog**	*Blood*	*Food*	●S: lower after 6wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
CRP	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
CRP	**Dog**	*Blood*	*Other biological*	●S: not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
CRP	**Dog**	*Blood*	*Other biological*	●B(EDTA): peak increase 24h after ovariohysterectomy (x10): not back to base on day 5 (*Kum et al. 2013*)
CRP	**Dog**	*Blood*	*Other biological*	●S(Act): not different in lean and obese dogs; increased after ovariohisterectomy(*Hillstrom et al. 2015*)
CRP	**Dog**	*Blood*	*Other biological*	●S: x10 on day following knee surgery; back to base 2mth later(*Clements et al. 1995*)
CRP	**Dog**	*Blood*	*Other biological*	●S: not different after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
CRP	**Dog**	*Blood*	*Other biological*	●S: decreased (: ~3) by obesity(*Veiga et al. 2008*)
CRP	**Dog**	*Blood*	*Sampling*	●S: not different in arterial & venous specimen(*Palsgaard-Van Lue et al. 2007*)
CRP	**Dog**	*Blood*	*Transport*	●S: not different after a 1d flight and road transport (*Liang et al. 2018*)
CRP	**Dog**	*Urine*	*Stability*	●U: intensely decreased after 4yr storage at -72°C(*Defauw et al. 2017*)
Cystatin C	**Dog**	*Blood*	*Drugs*	●S: increased after 7d prednisone 4mg/kg/d; then decreased; not different from controls in hyperadrenocorticism(*Munoz et al. 2017*)
Cystatin C	**Dog**	*Blood*	*Food*	●P(Hep/EDTA): decreased (~: 3) after meal for up to 9 hours; no circadian effect(*Braun et al. 2002*)
Cystatin C	**Dog**	*Blood*	*Other biological*	●S: no effet of age, weight, sex(*Wehner et al. 2008*)
Cystatin C	**Dog**	*Blood*	*Other biological*	●P(Hep/EDTA): lower in 1-8 yr-old than younger and older; lower in dogs less than 15kg BW(*Braun et al. 2002*)
Cystatin C	**Dog**	*Blood*	*Other biological*	●P(?): mild decrease by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
Cystatin C	**Dog**	*Blood*	*Other biological*	●S: no effect of sex; S: increase with age(*Monti et al. 2012*)
Cystatin C	**Dog**	*Blood*	*Stability*	●S: stable over 12h ; ~10% increase after 1yr at -80°C(*Wehner et al. 2008*)
Cystatin C	**Dog**	*Blood*	*Time variability*	●P(Hep/EDTA): no circadian effect(*Braun et al. 2002*)
Cystatin C	**Dog**	*Urine*	*Other biological*	●U: no effect of sex; S: increase with age(*Monti et al. 2012*)
Cystatin C	**Dog**	*Urine*	*Stability*	●U: stable 3, 7, 30 & 90 d at 20, 4, -20 & - 80°C; no interference of Hb<400 g/L(*Monti et al. 2012*)
D-Dimers	**Dog**	*Blood*	*Anticoagulant*	●P(Cit) ~10% lower than P(EDTA); stable 24h at room temp, 4 & -80°C(*Ceron et al. 2008*)
D-Dimers	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Cit): not different(*Granat et al. 2017*)
D-Dimers	**Dog**	*Blood*	*Colour*	●P(Cit): decreased by hemolysis; intensely increased by lipemia(*Bauer et al. 2009*)
D-Dimers	**Dog**	*Blood*	*Other technical*	●P(Cit): independent of diameter of catheter(*Bauer et al. 2011*)
D-Dimers	**Dog**	*Blood*	*Stability*	●P(Cit): unchanged for 2d at 24°C and 4d at 4°C(*Furlanello et al. 2006*)
D-Dimers	**Dog**	*Blood*	*Stability*	●P(Cit): stable for 2d at 4 & 20°C; 1mth at -20°C(*Boutet et al. 2009*)
Elastase	**Dog**	*Blood*	*Other biological*	●S: unchanged after endoscopic retrograde pancreatography(*Spillmann et al. 2004*)
Eosinophils	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
Eosinophils	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
Eosinophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased by ototopical dexamethasone(*Abraham et al. 2005*)
Eosinophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Eosinophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different during anesthesia by propofol with or without tramadol(*Costa et al. 2013*)
Eosinophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)

Eosinophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased after a single IV 1mg/kg dose of prednisone, minimum at 6h; back to base at 24h(*Tvedten et al. 2022*)
Eosinophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Eosinophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from day14 by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
Eosinophils	**Dog**	*Blood*	*Drugs*	●B(Hep): decreased from day 1 after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Eosinophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
Eosinophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~not different after training of sled dogs; decreased after exercise(*Davis et al. 2008*)
Eosinophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Eosinophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Eosinophils	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs living in low alimentary & sanitary conditions and in kenneled police dogs(*Rautenbach et al. 1987*)
Eosinophils	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Eosinophils	**Dog**	*Blood*	*Food*	●B(?): decreased by food restriction(*Takamatsu et al. 2015*)
Eosinophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Eosinophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 5wk exposure to electromagnetic radiations from mobile phone; decreased on 10th wk(*Dong et al. 2022*)
Eosinophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Eosinophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): higher in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Eosinophils	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Eosinophils	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Eosinophils	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
Eosinophils	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
Eosinophils	**Dog**	*Blood*	*Sampling*	●B(EDTA): clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 55 & 63% differences >TEa(*Guarino et al. 2022*)
Eosinophils	**Dog**	*Blood*	*Stability*	●B(EDTA): increase at room temp & after 2d post transport >> at 4°C(*Fontaine et al. 1986*)
Eosinophils	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at room temp(*Bourges-Abella et al. 2013*)
Eosinophils	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
Eosinophils	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher in autumn(*Strasser et al. 2001*)
Eosinophils	**Dog**	*Blood*	*Time variability*	●B(?): no circannual variations(*Sothern et al. 1993*)
Eosinophils	**Dog**	*Blood*	*Time variability*	●B(EDTA): lower at 3pm; maximum at 11pm(*Lilliehook 1997*)
Eosinophils	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
Eosinophils	**Dog**	*CSF*	*Stability*	●CSF: stable up to 48h at 4°C (*Fry et al. 2006*)
Epinephrin	**Dog**	*Blood*	*Drugs*	●P(EDTA): decreased by continuous infusion of medetomidine(*Lamont et al. 2012*)
Epinephrin	**Dog**	*Blood*	*Drugs*	●P(EDTA): E & NE decreased up to 90min after dexmedetomidine (5 µg/kgIV); changes less intense after physical exercise(*Raekallio et al. 2005*)
Epinephrin	**Dog**	*Blood*	*Exercise*	●P(EDTA): E & NE increased during 1.5 h high- and low-intensity treadmill exercise, decreasing from 30 min of recovery(*Baltzer et al. 2012, Radosevich et al. 1989*)
Epinephrin	**Dog**	*Blood*	*Food*	●P(Hep): NE lower in dogs supplemented with neutraceuticals(*Sechi et al. 2017*)
Epinephrin	**Dog**	*Blood*	*Stability*	●P(Hep): E & NE stable 1d at room temp, 6h if not centrifuged; 5-20% decrease after 4mth at -70°C; less stable in P(EDTA)(*D'Alesandro et al. 1990*)
Epinephrin	**Dog**	*Blood*	*Stress*	●S: E progressively decreased during acclimatization to repetitive blood sampling on 6wk; NE unchanged(*Slaughter et al. 2002*)
Epinephrin	**Dog**	*Blood*	*Transport*	●P(Hep): E increased by 30min simulated transport; increase is reduced by repeats; back to base at 1h(*Locatelli et al. 1989*)
Epinephrin	**Dog**	*Urine*	*Other biological*	●U: E, NE & dopamine not different according to anxious or aggressive behaviour(*Schmidt et al. 2023*)
Epinephrin	**Dog**	*Urine*	*Stress*	●U: NE/Creat lower before veterinary examination than after(*Hoglund et al. 2012*)
Epinephrin	**Dog**	*Urine*	*Stress*	●U: E/Creat & NE/Creat higher at hospital than home(*Kook et al. 2007*)

Epinephrin	**Dog**	*Urine*	*Stress*	●U: VMA/Creat higher in kennel than home environment(*Part et al. 2014*)
Erythropoietin	**Dog**	*Blood*	*Other biological*	●S: variably increased in dogs at 3500m altitude(*Glaus et al. 2004*)
ESR	**Dog**	*Blood*	*Colour*	●B(EDTA): increased by hemolysis from Hb=8g/L(*O'Neill and Feldman 1989*)
ESR	**Dog**	*Blood*	*Time variability*	●B(EDTA): no effect of season(*Strasser et al. 2001*)
Estrogens	**Dog**	*Blood*	*Colour*	●P(EDTA): unchanged by hemolysis(*Reimers et al. 1991*)
Estrogens	**Dog**	*Blood*	*Exercise*	●S: lower in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Factor IX	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): same results witht 3.2 & 3.8% citrate(*Stokol et al. 2000*)
Factor VIII	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): same results witht 3.2 & 3.8% citrate(*Stokol et al. 2000*)
Factor VIII	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Factor VIII	**Dog**	*Blood*	*Other technical*	●P(Cit): independent of diameter of catheter(*Bauer et al. 2011*)
Factor VIII	**Dog**	*Blood*	*Sampling*	●P(Cit): not different in arterial & venous specimen(*Palsgaard-Van Lue et al. 2007*)
Factor VIII	**Dog**	*Blood*	*Stability*	●P(Cit): ~10% decrease in 1d at 4°C, stable 2d at 20°C (*Mansell and Parry 1989*)
Factor VIII	**Dog**	*Blood*	*Stability*	●B(Cit) & P(Cit): decrease over 2d at 4°C, increase at 20°C(*Johnstone et al. 1991*)
Factor VIII	**Dog**	*Blood*	*Stability*	●B(Cit) & P(Cit): ~10% decrease after 1d at 4 or 20°C; not different after 2d at 37°C(*Mansell and Parry 1991*)
FDP	**Dog**	*Blood*	*Anticoagulant*	●S, P(Cit), S(Reptilase), S(Thrombin): can be used; little/no effect of hemolysis(*Stokol et al. 1999*)
FE Calcium	**Dog**	*Blood&Urine*	*Drugs*	●not different after 7wk prednisolone(*Kovalik et al. 2012*)
FE Calcium	**Dog**	*Blood&Urine*	*Food*	●higher at end of morning in dogs fed at 8-9am(*Hartenbower et al. 1974*)
FE Calcium	**Dog**	*Blood&Urine*	*Food*	●decreased ~40% after 24h fasting(*Lulich et al. 1991*)
FE Chloride	**Dog**	*Blood&Urine*	*Drugs*	●not different after bolus mannitol administration(*Segev et al. 2019*)
FE Chloride	**Dog**	*Blood&Urine*	*Drugs*	●increased after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
FE Chloride	**Dog**	*Blood&Urine*	*Drugs*	●not significantly decreased after furosemide or torsemide treatment(*Potter et al. 2019*)
FE Magnesium	**Dog**	*Blood&Urine*	*Food*	●decreased ~20% after 24h fasting(*Lulich et al. 1991*)
FE Magnesium	**Dog**	*Blood&Urine*	*Food*	●mildly higher at end of morning in dogs fed at 8-9am(*Hartenbower et al. 1974*)
FE Phosphate	**Dog**	*Blood&Urine*	*Drugs*	●not different after 7wk prednisolone(*Kovalik et al. 2012*)
FE Phosphate	**Dog**	*Blood&Urine*	*Drugs*	●not different after bolus mannitol administration(*Segev et al. 2019*)
FE Phosphate	**Dog**	*Blood&Urine*	*Food*	●unchanged after 24h fasting(*Lulich et al. 1991*)
FE Phosphate	**Dog**	*Blood&Urine*	*Food*	●higher at beginning of afternoon in dogs fed at 8-9am(*Hartenbower et al. 1974*)
FE Potassium	**Dog**	*Blood&Urine*	*Drugs*	●no effect of demetomidine(*Ribeiro Villela et al. 2005*)
FE Potassium	**Dog**	*Blood&Urine*	*Drugs*	●not different after furosemide or torsemide treatment(*Potter et al. 2019*)
FE Potassium	**Dog**	*Blood&Urine*	*Drugs*	●not different after bolus mannitol administration(*Segev et al. 2019*)
FE Potassium	**Dog**	*Blood&Urine*	*Drugs*	●mildly increased after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
FE Potassium	**Dog**	*Blood&Urine*	*Food*	●decreased ~60% after 24h fasting(*Lulich et al. 1991*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●no effect of medetomidine(*Ribeiro Villela et al. 2005*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●increased after medetomidine 80 µg/kg IM(Saleh, 2005)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●decreased for 2 dayus after halothane anesthesia + ovariohysterectomy without rehydration (*Lobetti and Lambrechts 2000*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●not significantly decreased after furosemide or torsemide treatment(*Potter et al. 2019*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●increased by thiopental anesthesia(*Gagnon et al. 1982*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●transient increase after bolus mannitol administration(*Segev et al. 2019*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●decreased after 5d oral treatment with 0.5 to 4mg/kg prednisoneTinklenberg, 2020 #59221}

FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●not different after 300 min administration ofdiltiazem or 5% glucose solution(*Kelley et al. 2022*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	●increased after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
FE Sodium	**Dog**	*Blood&Urine*	*Drugs*	● not different up to 2d after halothane anesthesia & elective surgery(*Lobetti and Lambrechts 2000*)
FE Sodium	**Dog**	*Blood&Urine*	*Food*	●higher at beginning of afternoon, lower in late evening in dogs fed at 8-9am(*Hartenbower et al. 1974*)
FE Sodium	**Dog**	*Blood&Urine*	*Food*	●decreased ~40% after 24h fasting(*Lulich et al. 1991*)
FE Urea	**Dog**	*Blood&Urine*	*Drugs*	●transient increase after bolus mannitol administration(*Segev et al. 2019*)
Ferritin	**Dog**	*Blood*	*Exercise*	●S: more increased in nonfinishers than finishers after endurance sled race(*Kenyon et al. 2011*)
Ferritin	**Dog**	*Blood*	*Other biological*	●S: ~not different after repeated blood donations(*Ferreira et al. 2014*)
Fibrinogen	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): same results witht 3.2 & 3.8% citrate(*Stokol et al. 2000*)
Fibrinogen	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): same results with 3.2 & 3.8% citrate(*Morales et al. 2007*)
Fibrinogen	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Cit): ~not different(*Granat et al. 2017*)
Fibrinogen	**Dog**	*Blood*	*Anticoagulant*	●P(Cit) & P(EDTA): similar results; P(Hep) inadequate(*Ludwig et al. 2012*)
Fibrinogen	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): ~5% higher than P(EDTA); P(Cit) stable 24h at room temp, 4 & -80°C(*Ceron et al. 2008*)
Fibrinogen	**Dog**	*Blood*	*Colour*	●P(Cit): decreased by hemolysis; no effect of lipemia(*Bauer et al. 2009*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●P(Cit): slightly decreased by cephalexin, amoxicillin & enrofloxacin for 1wk(*Webb et al. 2006*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d aspirin (2x10 mg/kg), carprofen (4.4 mg/kg), deracoxib(2 mg/kg)(*Blois et al. 2010*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●P(Cit): not different for 8d following 7d treatment with 2.0 mg/kg prednisone(*Hafner et al. 2022*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●P(Cit): increased after 2wk prednisone ± acetylsalicylic acid(*O'Kell et al. 2012*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●B(?): not different during 2d enoxaparin treatment in Beagles(*Pouzot-Nevoret et al. 2016*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●P(Cit): unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
Fibrinogen	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Fibrinogen	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Fibrinogen	**Dog**	*Blood*	*Exercise*	●P(Cit): unchanged by training of sled dogs(*Krogh et al. 2014*)
Fibrinogen	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
Fibrinogen	**Dog**	*Blood*	*Other biological*	●P(Cit): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
Fibrinogen	**Dog**	*Blood*	*Other biological*	●P(EDTA): mildly increased after ovariohysterectomy(*Kum et al. 2013*)
Fibrinogen	**Dog**	*Blood*	*Other biological*	●S: not different after repeated blood donations(*Ferreira et al. 2014*)
Fibrinogen	**Dog**	*Blood*	*Other technical*	●P(Cit): ~same results by direct venipuncture and by catheter after 24h(*Maeckelbergh and Acierno 2008*)
Fibrinogen	**Dog**	*Blood*	*Other technical*	●P(Cit): independent of diameter of catheter(*Bauer et al. 2011*)
Fibrinogen	**Dog**	*Blood*	*Other technical*	●B(Cit): not different for up to 3d in specimens from in-dwelling jugular catheter and direct venipuncture(*Kielb Basile et al. 2021*)
Fibrinogen	**Dog**	*Blood*	*Stability*	●P(Cit): no effect of storage at-70°C for 6mth(*Bateman et al. 1999*)
Fibrinogen	**Dog**	*Blood*	*Stability*	●P(Cit): ~5% decrease after 1d at 24°C and 2d at 4°C(*Furlanello et al. 2006*)
Fibrinogen	**Dog**	*Blood*	*Stability*	●P(Cit): stable up to 4h at 8°C; ~15 & 30% decrease at 8 & 24h(*Piccione et al. 2010*)
Folates	**Dog**	*Blood*	*Drugs*	●S: decreased by 8wk high dose trimethoprim+sulfadiazine(*Lording and Bellamy 1978*)
Folates	**Dog**	*Blood*	*Food*	●S: not different within 8h after meal in 12h fasted dogs(*Saver et al. 2021*)
Fructosamine	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep),higher than P(Cit), P(Fl) & P(EDTA)(*Ceron et al. 2004*)
Fructosamine	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results(*Thoresen et al. 1992*)

Fructosamine	**Dog**	*Blood*	*Drugs*	●S: not different after 6wk prednisolone; increased by cyclosporin(*Kovalik et al. 2012*)
Fructosamine	**Dog**	*Blood*	*Drugs*	●S: not different in diabetic dogs treated for 28d with prednisolone or diclofenac ophthalmic preparations(*Rankin et al. 2019*)
Fructosamine	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Fructosamine	**Dog**	*Blood*	*Drugs*	●S: not different after 3wk glucosamine-chondroitin sulphate treatment(*Lenox and Lunn 2010*)
Fructosamine	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Fructosamine	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Fructosamine	**Dog**	*Blood*	*Other biological*	●S: increased with body score(*Kolodziejski et al. 2021*)
Fructosamine	**Dog**	*Blood*	*Other biological*	●S: ~25% higher in obese dogs(*Veiga et al. 2008*)
Fructosamine	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Fructosamine	**Dog**	*Blood*	*Other technical*	●P(Hep): variable moderate changes in up to 11mth expired tubes(*Domingos et al. 2012*)
Fructosamine	**Dog**	*Blood*	*Stability*	●S: stable up to 4d at 4° & 25°C, 4wk at -20°C(*Jensen 1992*)
Fructosamine	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -70°C; decreased at -20°C(*Thoresen et al. 1995*)
Fructosamine	**Dog**	*Blood*	*Stability*	●S & P(Hep): decreased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Fructosamine	**Dog**	*Saliva*	*Food*	●Saliva: overnight fasting; IV 0.5 g glucose/kg); no change within 45 min(*Munoz-Prieto et al. 2019*)
Gastrin	**Dog**	*Blood*	*Drugs*	●S: increased by omeprazole (1 mg/kg/d, PO); back to base after 3d withdrawal; ~not changed by famotidine (1 mg/kg/d, PO) (*Parente et al. 2014*)
Gastrin	**Dog**	*Blood*	*Exercise*	●P(EDTA): moderately decreased after season of recreational musching(*Leggieri et al. 2019*)
Gastrin	**Dog**	*Blood*	*Exercise*	●S: increased after long distance race in sled dogs(*Fergestad et al. 2016*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●unchanged 1d after carprofen or meloxicam + anesthesia with ketamine+diazepam(*Crandell et al. 2004*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●not different after 300 min administration ofdiltiazem or 5% glucose solution(*Kelley et al. 2022*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●no effect of medetomidine(*Ribeiro Villela et al. 2005*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●transiently increased after bolus mannitol administration(*Segev et al. 2019*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●increased after IV & decreased after IM(*Saleh et al. 2005*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●increased by propofol, decreased by medetomidine and (halothane+xylazine+ketamine)(*Fusellier et al. 2007*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●decreased ~30% 1 day after treatment with carprofen or ketoprofen before anesthesia and surgery for castration(*Forsyth et al. 2000*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●unchanged by carprofen before isoflurane anesthesia+surgery(*Bergmann et al. 2005*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●unchanged for 2 days after halothane anesthesia +ovariohysterectomy(*Lobetti and Lambrechts 2000*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●decreased in anesthetized dogs ~30% after high cumulative doses of gentamicin(*Lora-Michiels et al. 2001*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●unchanged by sedation with butorphanol+diazepam, butorphanol+acepromazine, diazepam+ketamine(*Newell et al. 1997*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●decreased by radiocontrast agents(*Krause and Gilles 2003*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●increased after 5d oral treatment with 4mg/kg prednisone; not different at doses ≤2 mg/kg(*Tinklenberg et al. 2020*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●unchanged by ketoprofen (1mg/kg daily) for up to 30d(*Narita et al. 2005*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●not different in ethomidate, propofol or thiopental + isoflurane anesthetized dogs(*Chang et al. 2011*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●unchanged by thiopental anesthesia(*Gagnon et al. 1982*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●~20% increased by medetomidine-propofol-isoflurane anesthesia; not different after carprofen pretreatment(*Frendin et al. 2006*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●decreased after 2wk furosemide or torsemide(*Hori et al. 2007*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●markedly decreased after second iohexol injection at 6-8wk(*Kirberger et al. 2012*)
GFR	**Dog**	*Blood&Urine*	*Drugs*	●~20% increase by 16wk hydrocortisone; back to base after 4wk(*Smets et al. 2012*)
GFR	**Dog**	*Blood&Urine*	*Exercise*	●unchanged by training in Greyhounds(*McKeever et al. 1985*)

GFR	**Dog**	*Blood&Urine*	*Food*	●~x1.3 after 10g/kg meat meal(*O'Connor and Summerill 1976*)
GFR	**Dog**	*Blood&Urine*	*Food*	●+15-20% after soy protein meal(*Finco and Cooper 2000*)
GFR	**Dog**	*Blood&Urine*	*Food*	●unchanged by low protein- low phosphate diet(*Polzin et al. 1991*)
GFR	**Dog**	*Blood&Urine*	*Food*	●unchanged after 24h fasting(*Lulich et al. 1991*)
GFR	**Dog**	*Blood&Urine*	*Other biological*	●decreased in dehydrated, increased in hyperhydrated animals(*Tabaru et al. 1993*)
GFR	**Dog**	*Blood&Urine*	*Other biological*	●increased by volume expansion(*Massry et al. 1969*)
GFR	**Dog**	*Blood&Urine*	*Other biological*	●unchanged by multiple kidney biosies(*Groman et al. 2004*)
GFR	**Dog**	*Blood&Urine*	*Other technical*	●when collecting urine in metabolic cages, clearance can be underestimated up to 50% if cage is not rinsed(*Watson et al. 2002*)
GFR	**Dog**	*Blood&Urine*	*Time variability*	●higher around midday, lower in evening in dogs fed at 8-9am(*Hartenbower et al. 1974*)
GFR	**Dog**	*Blood&Urine*	*Time variability*	●no circadian changes(*Uechi et al. 1994, Uechi et al. 1997*)
GGT	**Dog**	*Blood*	*Anticoagulant*	●S: higher than P(Hep)(*Thoresen et al. 1992*)
GGT	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): not different(*Granat et al. 2017*)
GGT	**Dog**	*Blood*	*Colour*	●S: almost no changes by Hb up to 4g/L, bilirubin up to 600mg/L & TG up to 6g/L(*Jacobs et al. 1992*)
GGT	**Dog**	*Blood*	*Drugs*	●S: x2& x5 after 5 & 10 d of prednisone 4 mg/kg(*Solter et al. 1994*)
GGT	**Dog**	*Blood*	*Drugs*	●S: x2.5 after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)
GGT	**Dog**	*Blood*	*Drugs*	●S: unchanged up to 2wk after 5h anesthesia with isoflurane or sevoflurane(*Yuan et al. 2012*)
GGT	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
GGT	**Dog**	*Blood*	*Drugs*	●P(Hep): progressive increase by ototopical dexamethasone(*Abraham et al. 2005*)
GGT	**Dog**	*Blood*	*Drugs*	●S: not changed after 2-13wk phenobarbital(*Foster et al. 2000*)
GGT	**Dog**	*Blood*	*Drugs*	●S: increased from day 14 by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
GGT	**Dog**	*Blood*	*Drugs*	●S: unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
GGT	**Dog**	*Blood*	*Drugs*	●S: increased by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
GGT	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
GGT	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
GGT	**Dog**	*Blood*	*Drugs*	●S: mildly increased after 27wk phenobarbital; much more increased after withdrawal(*Gieger et al. 2000*)
GGT	**Dog**	*Blood*	*Drugs*	●S: transient increase(9-21wk) by 2x5mg/kg/d phenobarbital(*Muller et al. 2000*)
GGT	**Dog**	*Blood*	*Exercise*	●S: mild decrease during long distance sled race(*Hinchcliff et al. 1993*)
GGT	**Dog**	*Blood*	*Food*	●S: similar in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
GGT	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
GGT	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
GGT	**Dog**	*Blood*	*Food*	●P(?): not different after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
GGT	**Dog**	*Blood*	*Food*	●S: intensely increased by colostrum intake in neonates(*Center et al. 1991*)
GGT	**Dog**	*Blood*	*Food*	●S: increased after food restriction(*Takamatsu et al. 2015*)
GGT	**Dog**	*Blood*	*Other biological*	●P(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
GGT	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
GGT	**Dog**	*Blood*	*Other technical*	●S: much lower than milk, itself lower than colostrum(*Center et al. 1991*)
GGT	**Dog**	*Blood*	*Stability*	●S: increased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
GGT	**Dog**	*Blood*	*Stability*	●S: not clinically different after up to 8mth storage at -20 & -70°C; decreased in P(Hep)(*Thoresen et al. 1995*)
GGT	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)

GGT	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
GGT	**Dog**	*Prostatic fluid*	*Stability*	●PrFl:not different after 7d at -18°C(*Umbach et al. 2019*)
GGT	**Dog**	*Urine*	*Colour*	●U: unaffected by hemoglobinuria or hematuria(*Ilchyshyn et al. 2019*)
GGT	**Dog**	*Urine*	*Drugs*	●U: GGT & GGT/Cr slightly increased for 2 days after halothane anesthesia +ovariohysterectomy(*Lobetti and Lambrechts 2000*)
GGT	**Dog**	*Urine*	*Drugs*	●U: GGT/Cr ~unchanged by ketoprofen (1mg/kg daily) for up to 30d(*Narita et al. 2005*)
GGT	**Dog**	*Urine*	*Drugs*	●U: GGT/Cr ratio ~not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
GGT	**Dog**	*Urine*	*Drugs*	●U: GGT/Cr not different up to 2d after halothane anesthesia & elective surgery(*Lobetti and Lambrechts 2000*)
GGT	**Dog**	*Urine*	*Food*	●U(18h): not different after food restriction(*Takamatsu et al. 2015*)
GGT	**Dog**	*Urine*	*Other technical*	●U: moderately lower in filtered urine; ~stable up to 4 days at 4°C(*Gossett et al. 1987*)
GGT	**Dog**	*Urine*	*Other technical*	●U: GGT/Cr lower in acidic than alkaline pH(*Brunker et al. 2009*)
GGT	**Dog**	*Urine*	*Stability*	●U: changes < 8% of interassay imprecision after 3d at 20°C or 5d at 4°C; intensely inactivated from first day freezing at – 20°C; minor decrease progressive for 8wks at -80°C; unstable outside pH 5 to 8.5 range(*Ilchyshyn et al. 2019*)
GGT	**Dog**	*Urine*	*Stability*	●U: not different after 30d at 4 or -70°C; inactivated at -20°C(*Smee et al. 2016*)
GGT	**Dog**	*Urine*	*Time variability*	●U: no circadian changes; no sex effect(*Uechi et al. 1994*)
GH	**Dog**	*Blood*	*Food*	●S: not different in dogs fed diet enriched with protein, calcium, n-3 fatty acids & antioxidants for up to 18 mth(*Schoenherr et al. 2010*)
GH-RH	**Dog**	*Blood*	*Drugs*	●S: increased after high dose (10mg/kg) & decreased after low dose (5 & 1mg/kg) methylprednisolone(*Yilmaz et al. 2007*)
GH-RH	**Dog**	*Blood*	*Drugs*	●S: not different up to 4wkws daily ingestion of 0.3 mg/kg melatonin in intact and castrated males(*Taheri et al. 2019*)
GH-RH	**Dog**	*Blood*	*Food*	●P(EDTA): ~2 times lower after meal; back to fed values after ~4-5h(*Bhatti et al. 2006*)
GH-RH	**Dog**	*Blood*	*Food*	●S: not different in dogs fed diet enriched with protein, calcium, n-3 fatty acids & antioxidants for up to 12 mth; higher ta 18mth(*Schoenherr et al. 2010*)
GH-RH	**Dog**	*Blood*	*Other biological*	●P(?): ~6 times lower in obese than no-obese dogs(*Jeusette et al. 2005*)
Globulins	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased from 2wk etodolac 13.7 mg/kg/d(*Panciera and Johnston 2002*)
Globulins	**Dog**	*Blood*	*Drugs*	●S: not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Globulins	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Globulins	**Dog**	*Blood*	*Food*	●S: not different after food restriction(*Takamatsu et al. 2015*)
Globulins	**Dog**	*Blood*	*Food*	●S: unchanged by low protein- low phosphate diet(*Polzin et al. 1991*)
Globulins	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in August-September(*Sothern et al. 1993*)
Glucagon	**Dog**	*Blood*	*Food*	●S: peak increase 1-2h after high-fat mixed-meal in overweight and lean dogs(*Soder et al. 2016*)
Glucagon	**Dog**	*Blood*	*Other biological*	●S: not different according to body score(*Kolodziejski et al. 2021*)
Glucocorticoids	**Dog**	*Blood*	*Anticoagulant*	●S, S(Sep+Act), P(Hep), P(EDTA): ~same results (*Reimers et al. 1982*)
Glucocorticoids	**Dog**	*Blood*	*Anticoagulant*	●P(EDTA)& S: not different(*Olson et al. 1981*)
Glucocorticoids	**Dog**	*Blood*	*Anticoagulant*	●S: 51% higher in P(EDTA) by chemiluminescent enzyme immunoassay; reversible by MgCl2(*Schechter et al. 2020*)
Glucocorticoids	**Dog**	*Blood*	*Colour*	●S: moderately increased by hemolysis from 2 g/L Hb; decreased by lipemia(*Parra et al. 2004*)
Glucocorticoids	**Dog**	*Blood*	*Colour*	●S: ~not different in hemolyzed and icteric specimens; increased by lipemia(*Lucena et al. 1998*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(Hep): increase by halothane + surgery not different with butorphanol(*Fox et al. 1998*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(?): suppressed by 12/20d topical and ototopical dexamethasone; not back to base values after 1wk withdrawal(*Gottschalk et al. 2011*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(Hep): almost suppressed by 11d ototopical dexamethasone(*Abraham et al. 2005*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased after prednisone (2x0.55 mg/kg/d)(*Corrigan et al. 2010*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(EDTA): not different after 10 lg/kg dexmedetomidine IV(*Restitutti et al. 2012*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●S: not different at pre-anesthesia, induction, end of propofol anesthesia and 1h later in healthy dogs receiving fentanyl(*Romano et al. 2019*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(EDTA): not different up to 90min after dexmedetomidine (5 µg/kgIV)(*Raekallio et al. 2005*)

Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(?): not different after up to 52wk phenobarbital in epileptic dogs (*Chauvet et al. 1995*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●S: dose-related decrease to suppression after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●S: increased after stifle surgery + fentanyl; not different after surgery + spinal anesthesia(*Romano et al. 2016*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●S: transient increase after 1or 5mg/kg methylprednisolone; back to base after 1d(*Tvarijonaviciute et al. 2011*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●S(Sep): peaking 1h after ovariohysterectomy; back to base ~8h; not different with application of a transdermal lidocaine patch(*Merema et al. 2017*)
Glucocorticoids	**Dog**	*Blood*	*Drugs*	●P(EDTA): decreased by continuous infusion of medetomidine(*Lamont et al. 2012*)
Glucocorticoids	**Dog**	*Blood*	*Exercise*	●S: increased after long distance race in sled dogs(*Fergestad et al. 2016*)
Glucocorticoids	**Dog**	*Blood*	*Exercise*	●P(EDTA): increased during 1.5 h high- and low-intensity treadmill exercise, decreasing from 30 min of recovery(*Baltzer et al. 2012, Radosevich et al. 1989*)
Glucocorticoids	**Dog**	*Blood*	*Exercise*	●S: ~x2 increase after 7km race of Greyhounds(*Tharwat et al. 2014*)
Glucocorticoids	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Glucocorticoids	**Dog**	*Blood*	*Food*	●P(EDTA): unchanged up to 9h after meal(*Bellanger et al. 2015*)
Glucocorticoids	**Dog**	*Blood*	*Food*	●P(Hep): lower in dogs supplemented with neutraceuticals(*Sechi et al. 2017*)
Glucocorticoids	**Dog**	*Blood*	*Other biological*	●S: increase peaking 1 hour after ovariohysterectomy surgery; back to base at 12h(*Tavares et al. 2023*)
Glucocorticoids	**Dog**	*Blood*	*Other biological*	●S: ~x2 after adominal ultrasound examination(*May et al. 2004*)
Glucocorticoids	**Dog**	*Blood*	*Sampling*	●S: mildly higher in catrated dogs showing signs of fear in specimen collection room(*Gutierrez et al. 2019*)
Glucocorticoids	**Dog**	*Blood*	*Stability*	●P(EDTA): increased when EDTA concentration higher than recommended (underfilled tubes)(*Kemppainen et al. 2018*)
Glucocorticoids	**Dog**	*Blood*	*Stability*	●P(EDTA)& S: stable for 5d at -20°C; P more stable than S at 4, 25 & 37°C(*Behrend et al. 1998*)
Glucocorticoids	**Dog**	*Blood*	*Stability*	●S, S(Sep+Acc), P(Hep), P(EDTA): stable up to 3d at 4°C, 24h at room temp; unchanged in S by 8 freeze-thaw cycles (*Reimers et al. 1982*)
Glucocorticoids	**Dog**	*Blood*	*Stability*	●P(EDTA)& S: stable up to 40h at 4°C with or without centrifugation; S stable up to 2wk or 3d at low or high concentrations(*Olson et al. 1981*)
Glucocorticoids	**Dog**	*Blood*	*Stress*	●P(Hep): lower after acclimatization to housing facilities(*Garnier et al. 1990*)
Glucocorticoids	**Dog**	*Blood*	*Stress*	●S: ~3 times lower in dogs accustomed to hospital and sampling procedures than in non accustomed dogs(*Srithunyarat et al. 2018*)
Glucocorticoids	**Dog**	*Blood*	*Stress*	●S: not different after noise stress(*Jeong et al. 2020*)
Glucocorticoids	**Dog**	*Blood*	*Stress*	●S: ~twice higher in dogs waiting indoor than outdoor of veterinary practice(*Perego et al. 2014*)
Glucocorticoids	**Dog**	*Blood*	*Stress*	●P(Hep): lower on day 10 than at entrance in shelter; lower in dogs receiving daily 30 min petting sessions(*Dudley et al. 2015*)
Glucocorticoids	**Dog**	*Blood*	*Stress*	●P(?): intense increase during exposure to high temperature; back to base after 1d(*Assia et al. 1989*)
Glucocorticoids	**Dog**	*Blood*	*Time variability*	●P(?): no circadian rhythm(*Castillo et al. 2009*)
Glucocorticoids	**Dog**	*Blood*	*Time variability*	●P(EDTA): no circadian rhythm(*Kemppainen and Sartin 1984*)
Glucocorticoids	**Dog**	*Blood*	*Time variability*	●S: about 60% higher in the 10am-1pm interval than rest of the day in resting dogs; no variation in experimental and working dogs(*Kolevska et al. 2003*)
Glucocorticoids	**Dog**	*Blood*	*Time variability*	●P(Hep): no circadian rhythm; not different in spring and autumn(*Thun et al. 1990*)
Glucocorticoids	**Dog**	*Blood*	*Time variability*	●P(Hep): no circadian rhythm(*Johnston and Mather 1978*)
Glucocorticoids	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; 70% increase at arrival; not completely back to base after 2wks re-housing(*Ochi et al. 2016*)
Glucocorticoids	**Dog**	*Saliva*	*Transport*	●P(EDTA): almost x2 after 2h road transport(*Herbel et al. 2020*)
Glucocorticoids	**Dog**	*Blood*	*Transport*	●P(EDTA): increased by road & air transport(*Bergeron et al. 2002*)
Glucocorticoids	**Dog**	*Feces*	*Exercise*	●F: not different at rest before training, after 60 days of training, after 60 days of hunting season and after 60 days of rest(*Zannoni et al. 2020*)
Glucocorticoids	**Dog**	*Feces*	*Food*	●F: decreased from 1 week feeding with a quercetin, bromelain, and Lentinula edodes additive(*Atuahene et al. 2023*)
Glucocorticoids	**Dog**	*Feces*	*Stress*	●F: ~twice higher in stray than in demonstration dogs; x3-4 increase in demonstration dogs on day after service(*Uetake et al. 2015*)
Glucocorticoids	**Dog**	*Feces*	*Time variability*	●F: increased between 8 and 71h after ACTH challenge(*Schatz and Palme 2001*)
Glucocorticoids	**Dog**	*Hair*	*Colour*	●H: higher in light hair than in dark and intermediate hair(*Bowland et al. 2020*)
Glucocorticoids	**Dog**	*Hair*	*Exercise*	●H: Border Collies; white hair; higher in dogs participating in flyball exercise and (not signgificantly) in agility(*Packer et al. 2019*)

Glucocorticoids	**Dog**	*Hair*	*Housing*	●H: Border Collies; white hair; higher in dogs living in households of ≥ 3 dogs(*Packer et al. 2019*)
Glucocorticoids	**Dog**	*Hair*	*Housing*	●H: not different in pet dogs and dogs entering a shelter; hugher with time in shelter(*van der Laan et al. 2022*)
Glucocorticoids	**Dog**	*Hair*	*Housing*	●H: decreased when moved from single- to pair-housing(*Grigg et al. 2017*)
Glucocorticoids	**Dog**	*Hair*	*Other biological*	●H: not different in dogs having secure vs unsecure attachment to their owners(*Riggio et al. 2022*)
Glucocorticoids	**Dog**	*Hair*	*Sampling*	●H: stable in dogs living in stable environment; not different from right and left shoulders(*Bryan et al. 2013*)
Glucocorticoids	**Dog**	*Hair*	*Sampling*	●H: lower in black than yellow hairs(*Bennett and Hayssen 2010*)
Glucocorticoids	**Dog**	*Hair*	*Stress*	●H: German shepherds; higher in January than May & September; higher in competing dogs than in companion or working dogs; lower in dogs with positive human interactions(*Roth et al. 2016*)
Glucocorticoids	**Dog**	*Hair*	*Time variability*	●H: not different in 9am and 5pm specimens; increased 2wks after acoustic stress(*Siniscalchi et al. 2013*)
Glucocorticoids	**Dog**	*Hair*	*Drugs*	●H: not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
Glucocorticoids	**Dog**	*Saliva*	*Drugs*	●Saliva: not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
Glucocorticoids	**Dog**	*Saliva*	*Exercise*	●Saliva: ~twice higher at end than beginning of workind day in military dogs(*Arcuri et al. 2022*)
Glucocorticoids	**Dog**	*Saliva*	*Exercise*	●Saliva: ~3 times higher in guide dogs than in companion animal dogs(*De la Fuente-Moreno et al. 2023*)
Glucocorticoids	**Dog**	*Saliva*	*Exercise*	●Saliva: increased after hunting, not after agility or tracking(*Colussi et al. 2018*)
Glucocorticoids	**Dog**	*Saliva*	*Other biological*	●Saliva: lower in dogs having secure vs unsecure attachment to their owners(*Riggio et al. 2022*)
Glucocorticoids	**Dog**	*Saliva*	*Other biological*	●Saliva: increase peaking 1 hour after ovariohysterectomy surgery; back to base at 12h(*Tavares et al. 2023*)
Glucocorticoids	**Dog**	*Saliva*	*Other biological*	●Saliva: not different after 5min stroking or isolation of guide dogs(*Ogi et al. 2020*)
Glucocorticoids	**Dog**	*Saliva*	*Other technical*	●Saliva: ~15 times lower than P(Hep)(*Vincent and Michell 1992*)
Glucocorticoids	**Dog**	*Saliva*	*Sampling*	●Saliva: higher variability if stimulated by citric acid or beef flavor; same results with ropes of hydrocellulose swabs(*Dreschel and Granger 2009*)
Glucocorticoids	**Dog**	*Saliva*	*Sampling*	● Saliva: not different if collected with cotton rolls flavoured or not flavoured by citric acid(*Damian et al. 2018*)
Glucocorticoids	**Dog**	*Saliva*	*Sampling*	●Saliva: higher with ginger flavoured swab or trea+swab collection(*Meunier et al. 2021*)
Glucocorticoids	**Dog**	*Saliva*	*Sampling*	●Saliva: higher when duration of collection with filter paper >2min(*Oyama et al. 2014*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: decreased 7d after surgery for disease related pain in most dogs(*Kang et al. 2022*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: increased after acute stress in puppy and adult German Shepherds(*Svobodova et al. 2014*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: salivary cortisol as a marker of acute stress in dogs: a review(*Chmelikova et al. 2020*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: increased after stresses of shocks, sound blasts and a falling bag ; back to base between 30 and 60 min ; not different after short restraint or unbrella opening(*Beerda et al. 1996*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: increased after social + spatial restriction when pleasant whether before; decreased if bad weather; increased by sound blasts(*Beerda et al. 1999*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: not different when restrained in Pavlov slings(*Stracke et al. 2011*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: similar increase after stress in dogs having secure or unsecure attachment to their owners(*Riggio et al. 2022*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: shelter dogs; decreased after 25-min exercise and human contact(*Menor-Campos et al. 2011*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: increased after “controlled” play & decreased after “free” play(*Horvath et al. 2008*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: not different in the 30 min following the noise of a gunshot(*De la Fuente-Moreno et al. 2023*)
Glucocorticoids	**Dog**	*Saliva*	*Stress*	●Saliva: ~unchanged by 4min restraint; unchanged every 30min between 2 and 4pm(*Kobelt et al. 2003*)
Glucocorticoids	**Dog**	*Saliva*	*Time variability*	●Saliva: not different in morning, middat, evening specimens over 3 consecutive days(*Colussi et al. 2018*)
Glucocorticoids	**Dog**	*Saliva*	*Time variability*	●Saliva: no circadian rhythm; highest at 10 pm, lowest at 3 am(*Koyama et al. 2003*)
Glucocorticoids	**Dog**	*Saliva*	*Time variability*	●Saliva: same circadian rhythm as plasma cortisol; increasing in the morning, peaking about 2pm, decreasing to 4 am(*Giannetto et al. 2014*)
Glucocorticoids	**Dog**	*Saliva*	*Transport*	● Saliva: x8 after 2h road transport(*Herbel et al. 2020*)
Glucocorticoids	**Dog**	*Saliva*	*Transport*	● Saliva: increased by road & air transport(*Bergeron et al. 2002*)
Glucocorticoids	**Dog**	*Urine*	*Drugs*	●U: Cortisol/Cr not different after phenobarbitone treatment(*Foster et al. 2000*)

Glucocorticoids	**Dog**	*Urine*	*Exercise*	●U: Cortisol/Cr ratio x5-9 after long distance sled race(*Durocher et al. 2007*)
Glucocorticoids	**Dog**	*Urine*	*Food*	●U: Cortisol/Cr ratio lower in pups but not in adult sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Glucocorticoids	**Dog**	*Urine*	*Food*	●U: Cortisol/Cr mildly increased after eating(*Mitsui et al. 2011*)
Glucocorticoids	**Dog**	*Urine*	*Housing*	●U: Cortisol/Cr ~twice higher in kennel than home environment(*Part et al. 2014*)
Glucocorticoids	**Dog**	*Urine*	*Other biological*	●U: Cortisol/Cr higher in overweight than lean dogs; increased after meal in lean dogs(*Soder et al. 2016*)
Glucocorticoids	**Dog**	*Urine*	*Stress*	●U: Cortisol/Cr ratio increased after social + spatial restriction when pleasant whether before; unchanged if bad weather(*Beerda et al. 1999*)
Glucocorticoids	**Dog**	*Urine*	*Stress*	●U: Cortisol/Cr lower in home than hospital specimens(*Citron et al. 2020*)
Glucocorticoids	**Dog**	*Urine*	*Stress*	●U: Cortisol/Cr decreases after introduction into kennel for stray dogs & increases in home dogs(*Hiby et al. 2006*)
Glucocorticoids	**Dog**	*Urine*	*Time variability*	●U: Cortisol/Cr not different with time; intense interindividual and daily variability(*Jones et al. 1990*)
Glucose	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep), P(EDTA), P(Fl), higher than P(Cit)(*Ceron et al. 2004*)
Glucose	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results, higher than B with POCT(*Tauk et al. 2015*)
Glucose	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): POCT measurement; not different in S & P, higher than in whole blood(*Lechner and Hess 2019*)
Glucose	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis up to 8g Hb/L(*O'Neill and Feldman 1989*)
Glucose	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Glucose	**Dog**	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); higher after LipoClear; lower after high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Glucose	**Dog**	*Blood*	*Colour*	●S: changes <5% by Hb up to 4g/L & Bilirubin up to 600mg/L; increased by TG>4.5g/L(*Jacobs et al. 1992*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(EDTA): unchanged after demetomidine(*Saleh et al. 2005*)
Glucose	**Dog**	*Blood*	*Drugs*	●S: not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
Glucose	**Dog**	*Blood*	*Drugs*	●B(?): unchanged by diazepam+ketamine and minor surgery; increased after dexamethasone(*Fattahian et al. 2012*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Glucose	**Dog**	*Blood*	*Drugs*	●B: transient increase during IV administration(*Gonzales et al. 2011*)
Glucose	**Dog**	*Blood*	*Drugs*	●S: unchanged by perfusion of crystaloids; increased by 5% glucose during surgery, back to ase after 2h(*Gaynor et al. 1996*)
Glucose	**Dog**	*Blood*	*Drugs*	●B(POCT): brief dose dependent decrease by albuterol inhalation; nadir between 30 and 60 min(*Ogrodny et al. 2022*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(Fl): not different after 6wk prednisolone(*Kovalik et al. 2012*)
Glucose	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Glucose	**Dog**	*Blood*	*Drugs*	●S: increased after 5d oral treatment with 4mg/kg prednisone; not significantly different at lower doses(*Tinklenberg et al. 2020*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(?): not different after 12/20d topical and ototopical dexamethasone(*Gottschalk et al. 2011*)
Glucose	**Dog**	*Blood*	*Drugs*	●B(POCT): not different at pre-anesthesia, induction, end of propofol anesthesia and 1h later in healthy dogs receiving fentanyl(*Romano et al. 2019*)
Glucose	**Dog**	*Blood*	*Drugs*	●B: 10% increase 4 to 12h after charcoal/propylene glycol/glycerol(*Burkitt et al. 2005*)
Glucose	**Dog**	*Blood*	*Drugs*	●B(Hep): ~25% increase after 10 lg/kg dexmedetomidine IV(*Restitutti et al. 2012*)
Glucose	**Dog**	*Blood*	*Drugs*	●S: not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(EDTA): ~not different during continuous infusion of medetomidine(*Lamont et al. 2012*)
Glucose	**Dog**	*Blood*	*Drugs*	●S: not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
Glucose	**Dog**	*Blood*	*Drugs*	●B(POCT): not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(EDTA): not different after acepromazine pre-anesthesia; Increased after medetomidine(*Guedes and Rude 2013*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(Hep): not different 24h after sevoflurane anesthesia in dogs perfused with aminoacids before anesthesia(*Clark-Price et al. 2015*)
Glucose	**Dog**	*Blood*	*Drugs*	●B(POCT): increased after stifle surgery + fentanyl; not different after surgery + spinal anesthesia(*Romano et al. 2016*)
Glucose	**Dog**	*Blood*	*Drugs*	●P(Hep): transient decrease after dexmedetomidine (5 µg/kgIV)(*Raekallio et al. 2005*)

Glucose	**Dog**	*Blood*	*Exercise*	●P(Hep): unchanged for 24h after 1 h race at 9 km/h in untrained Beagles(*Chanoit et al. 2002*)
Glucose	**Dog**	*Blood*	*Exercise*	●P(EDTA): increased after race in Greyhounds(*Snow et al. 1988*)
Glucose	**Dog**	*Blood*	*Exercise*	●S: unchanged by anticipation and x2 after short-duration intense exercise(*Angle et al. 2009*)
Glucose	**Dog**	*Blood*	*Exercise*	●P(Hep): not significantly increased after 20 min exercise on underwater treadmill(*Miyata et al. 2023*)
Glucose	**Dog**	*Blood*	*Exercise*	●S: increased during long distance sled race(*Hinchcliff et al. 1993*)
Glucose	**Dog**	*Blood*	*Exercise*	●B/P(?): post-prandial kinetics not different after a 15min exercicise 30 min after meal in lean and overweight dogs(*Davis et al. 2022*)
Glucose	**Dog**	*Blood*	*Exercise*	●B: decreased by treadmill moderate exercise(*Piccione et al. 2012*)
Glucose	**Dog**	*Blood*	*Exercise*	●P(Hep): ~not changed by mild intensity endurance exercise(*Clero et al. 2015*)
Glucose	**Dog**	*Blood*	*Exercise*	●P(EDTA): not different during 1.5 h high- and low-intensity treadmill exercise, not different during 1.5h recovery(*Baltzer et al. 2012, Radosevich et al. 1989*)
Glucose	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Glucose	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Glucose	**Dog**	*Blood*	*Food*	●P(?): post prandial increase with 4 different commercial food back to base after 3h(*Nguyen et al. 1994*)
Glucose	**Dog**	*Blood*	*Food*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
Glucose	**Dog**	*Blood*	*Food*	●S(Act): post-prandial increase higher than TEa in <20% dogs(*Yi et al. 2023*)
Glucose	**Dog**	*Blood*	*Food*	●P(Fl): post-prandial increase little influenced by type of food and feeding schedule(*Brambillasca et al. 2010*)
Glucose	**Dog**	*Blood*	*Food*	●P(Fl): 24h fasting; no difference after high protein meal; increase peaking at 60 min (x1.3) after high protein high glucose meal; rapidly decreasing(*Hewson-Hughes et al. 2011*)
Glucose	**Dog**	*Blood*	*Food*	●P(Fl): 24h fasting; minimal changes after low, medium and high starch meals(*Hewson-Hughes et al. 2011*)
Glucose	**Dog**	*Blood*	*Food*	●S: mildly lower in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Glucose	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Glucose	**Dog**	*Blood*	*Food*	●P(Hep): time (3 to 80 min) and intensity of post-prandial peak greatly dependent on food composition(*Nguyen et al. 1998*)
Glucose	**Dog**	*Blood*	*Food*	●P(Fl): not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Glucose	**Dog**	*Blood*	*Food*	●P(Hep): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Glucose	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Glucose	**Dog**	*Blood*	*Food*	●P(?): decreased by prolonged fasting(*Brady et al. 1977*)
Glucose	**Dog**	*Blood*	*Food*	●S: moderate increase from 2h after high-fat mixed-meal in overweight and lean dogs(*Soder et al. 2016*)
Glucose	**Dog**	*Blood*	*Food*	●P(?): not different after 6d fasting(*Lemieux and Plante 1968*)
Glucose	**Dog**	*Blood*	*Food*	●S: decreased after food restriction(*Takamatsu et al. 2015*)
Glucose	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Glucose	**Dog**	*Blood*	*Other biological*	●P(Hep): same in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Glucose	**Dog**	*Blood*	*Other biological*	●P(Fl): not different in obese and non-obese dogs(*Jeusette et al. 2005*)
Glucose	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Glucose	**Dog**	*Blood*	*Other biological*	●P(?): not correlated with obesity(*Sagawa et al. 2002*)
Glucose	**Dog**	*Blood*	*Other biological*	●S: not different after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Glucose	**Dog**	*Blood*	*Other biological*	●S: increases with body score(*Kolodziejski et al. 2021*)
Glucose	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): not different(*Bachmann et al. 2018*)
Glucose	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles; except N-methyl-2-pyrrolidoneon day 7(*Ruble et al. 2006*)
Glucose	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Glucose	**Dog**	*Blood*	*Sampling*	●P(Hep): not different in jugular and bone marrow specimens(*Ackert et al. 2019*)

Glucose	**Dog**	*Blood*	*Sampling*	●P(Hep): mildly lower from vacuum tube in jugular vein than capillary tube in cephalic vein(*Reynolds et al. 2008*)
Glucose	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 5 & 5% differences >TEa(*Guarino et al. 2022*)
Glucose	**Dog**	*Blood*	*Sampling*	●B(POCT): fasting and 2h post prandial concentration not different in specimens from saphenous vein and ear capillary; lower in blood from carpal pad and oral mucoa capillaries(*Guevara et al. 2019*)
Glucose	**Dog**	*Blood*	*Sampling*	●B(POCT): diabetic dogs; not different in venous(?) blood and in specimens from ear and carpal pad capillaries(*Borin et al. 2012*)
Glucose	**Dog**	*Blood*	*Stability*	●P(Fl): increased when centrifugation delayed at room temp, 4°C & after 2d post transport(*Fontaine et al. 1986*)
Glucose	**Dog**	*Blood*	*Stability*	●S: decreased >5% after 1d at 4°C, >20% at room temperature, >80% in tube centrifuged after 2d post transport(*Fontaine et al. 1986*)
Glucose	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Glucose	**Dog**	*Blood*	*Stability*	●S & P(Hep): same results; decreased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Glucose	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Glucose	**Dog**	*Blood*	*Stability*	●S: decreased when centrifugation delayed for 2h at 20°C & 8h at 4°C(*Collicutt et al. 2015*)
Glucose	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
Glucose	**Dog**	*Blood*	*Stress*	●S: not different in dogs waiting indoor or outdoor of veterinary practice(*Perego et al. 2014*)
Glucose	**Dog**	*Blood*	*Time variability*	●P(Hep): lower in autumn(*Strasser et al. 2001*)
Glucose	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in November-January(*Sothern et al. 1993*)
Glucose	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)
Glucose	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)
Glucose	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Glucose	**Dog**	*Saliva*	*Drugs*	●Saliva: overnight fasting; IV 0.5 g glucose/kg); increased at 30 min(*Munoz-Prieto et al. 2019*)
Glucose	**Dog**	*Saliva*	*Sampling*	●Saliva: 30-40 min Time-lag with blood glucose(*Ioannou et al. 2021*)
Glucose	**Dog**	*Urine*	*Colour*	●U: dipstick results not different in dark pink or red urines(*Vientos-Plotts et al. 2018*)
Glucose	**Dog**	*Urine*	*Drugs*	●U: dipstick false negatives in dogs treated with cephalexin or enrofloxacin(*Rees and Boothe 2004*)
Glucose	**Dog**	*Urine*	*Drugs*	●U: two cases of transient glucosuria on day following isoflurane anesthesia(*Cha et al. 2021*)
Glutamate	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Glutathione	**Dog**	*Blood*	*Exercise*	●P(Hep): GSH ~not changed by mild intensity endurance exercise(*Clero et al. 2015*)
Glycerol	**Dog**	*Blood*	*Exercise*	●P(EDTA): increased 30min after race in Greyhounds(*Snow et al. 1988*)
GPDAP	**Dog**	*Urine*	*Time variability*	●U: no circadian changes fo GP-DAP/Cr ratio(*Uechi et al. 1997*)
GPx	**Dog**	*Blood*	*Exercise*	●RBC(Hep): unchanged after strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
GPx	**Dog**	*Blood*	*Food*	●S: lower from 6mth in dogs fed diet enriched with protein, calcium, n-3 fatty acids & (*Schoenherr et al. 2010*)
GPx	**Dog**	*Blood*	*Food*	●B(Hep): higher with canned food than kibble(*van Zelst et al. 2016*)
GPx	**Dog**	*Blood*	*Food*	●S & B(Hep): lower when fed a low selenium diet(*van Zelst et al. 2016*)
GTT	**Dog**	*Blood*	*Drugs*	●~not different after acepromazine sedation(*Ionut et al. 2004*)
GTT	**Dog**	*Blood*	*Other technical*	●PI(Fl)&S: 14-15h fasting; OGTT : peak glucose at 20-30 min, back to base at 2h; peak insulin at 15-40min, back to base at 2h; IVGTT : peak glucose immediate, back to base at 1h; peak insulin 15-20 min, back to base at 1h(*Church 1980*)
Haptoglobin	**Dog**	*Blood*	*Colour*	●S: no effects of hemolysis, lipemia or bilirubinemia in immunofluorometric assay(*Parra and Ceron 2007*)
Haptoglobin	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis (>0,25g Hb/L) & decreased by lipemia (>1 g/L)(*Weidmeyer and Solter 1996*)
Haptoglobin	**Dog**	*Blood*	*Drugs*	●S: x3-4 from d8 by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
Haptoglobin	**Dog**	*Blood*	*Drugs*	●S: x~4 from d14 by 2.2mg/kg/d prednisolone(*Center et al. 2005*)
Haptoglobin	**Dog**	*Blood*	*Exercise*	●S: transient increase (x2) after hunting; ~back to base after 1h(*Casella et al. 2013*)
Haptoglobin	**Dog**	*Blood*	*Exercise*	●S: increased after 7km race of Greyhounds(*Tharwat et al. 2014*)

Haptoglobin	**Dog**	*Blood*	*Other biological*	●S: not different after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Haptoglobin	**Dog**	*Blood*	*Other biological*	●S: not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
Haptoglobin	**Dog**	*Blood*	*Transport*	●S: ~x2 after a 3h-road transport; back to base 6h later(*Fazio et al. 2015*)
HDL	**Dog**	*Blood*	*Food*	●S: increased after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
HDL	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
HDL	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
HDL	**Dog**	*Blood*	*Time variability*	●S: ~0.6 mmol/L higher in June than in Dec-Jan(*Walker et al. 2022*)
Hemoglobin	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
Hemoglobin	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): not diferent(*Granat et al. 2017*)
Hemoglobin	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(Cit): not different(*Stokol and Erb 2007*)
Hemoglobin	**Dog**	*Blood*	*Colour*	●B(EDTA): unchanged by hemolysis(*O'Neill and Feldman 1989*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(?): progressive decrease (max 1h) after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from 15 min to 12h after acepromazine, decreased from 30 to 60 min after xylazine(*Sutil et al. 2017*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): moderately decreased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased 2d after 7d treatment with 0.5 mg/kg BW, q12h prednisolone ; not after or 2 mg/kg BW, q12h (*Adamama-Moraitou et al. 2005*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(?): decreased after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from 30 min after induction of anesthesia by propofol with & without tramadol; then stable for 1h(*Costa et al. 2013*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): time & dose-dependant decrease in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased 3h after 7.5 ml/kg Hb-glutamer; back to base at 8h(*Kerl and Langdon 2007*)
Hemoglobin	**Dog**	*Blood*	*Drugs*	●B(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(Hep): decreased by strenuous exercise(*Dzhelebov et al. 2008*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(?): ~8% increase after 21 km race at 13 km/h(*Sanders and Bloor 1975*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased after race in Greyhounds(*Snow et al. 1988*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(Hep): unchanged by training in Greyhounds(*McKeever et al. 1985*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in working & pet Border Collies(*Downs et al. 1997*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): mildly increased immediately after agility test; decreased 15 & 30min later(*Rovira et al. 2007*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): decreased by training & exercise of sled dogs(*Davis et al. 2008*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): lower in dogs trained for long distance aerobic effort(*Arokoski et al. 1993*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased immediately after agility test; back to base or below after 4h(*Baltzer et al. 2012*)
Hemoglobin	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Hemoglobin	**Dog**	*Blood*	*Food*	●B(?): ~not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Hemoglobin	**Dog**	*Blood*	*Food*	●B(EDTA): ~40% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs(*Rautenbach et al. 1987*)
Hemoglobin	**Dog**	*Blood*	*Food*	●B(EDTA): higher after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Hemoglobin	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)

Hemoglobin	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Hemoglobin	**Dog**	*Blood*	*Food*	●B(EDTA): not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Hemoglobin	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
Hemoglobin	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
Hemoglobin	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
Hemoglobin	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Hemoglobin	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after repeated blood donations(*Ferreira et al. 2014*)
Hemoglobin	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Hemoglobin	**Dog**	*Blood*	*Other technical*	●B(EDTA): ~4% lower by SLS(Sysmex) than cyanmetHb (ADVIA) method(*Yufa et al. 2013*)
Hemoglobin	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles; except ethanol on day7(*Ruble et al. 2006*)
Hemoglobin	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): not different(*Bachmann et al. 2018*)
Hemoglobin	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Hemoglobin	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Hemoglobin	**Dog**	*Blood*	*Sampling*	●B(EDTA): mildly lower from vacuum tube in jugular vein than capillary tube in cephalic vein(*Reynolds et al. 2008*)
Hemoglobin	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
Hemoglobin	**Dog**	*Blood*	*Sampling*	●P(Hep): not different in jugular and bone marrow specimens(*Ackert et al. 2019*)
Hemoglobin	**Dog**	*Blood*	*Sampling*	●B(EDTA): ~20% lower in arterial than venous specimen(*Palsgaard-Van Lue et al. 2007*)
Hemoglobin	**Dog**	*Blood*	*Sampling*	●B(EDTA): same in jugular and cephalic vein(*Jensen et al. 1994*)
Hemoglobin	**Dog**	*Blood*	*Sampling*	●B(EDTA): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 2 & 22% differences >TEa(*Guarino et al. 2022*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): same results in samples received by post as in fresh samples(*Hinton and Jones 1978*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): no effect of transport and storage for 24h at 4-10°C(*Hayashi et al. 1995*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): ~9g/L decrease over 4d in mailing conditions(*Grenn et al. 1976*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): unchanged at room temp, 4°C for up to 4d & after 2d post transport(*Fontaine et al. 1986*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): unchanged at room temp for up to 2d(*Medaille et al. 2006*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): ~8g/L increase over 3d in mailing conditions(*Grenn et al. 1976*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): stable 3d at 4 & 25°C(*Pastor et al. 1997*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 3d at room temp(*Prins et al. 2009*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA), B(Ox), B(Hep): <2SD deviation after 4days(*Falconer and Chapman 1977*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2.5d at room temp & at 4°C(*Athanasiou et al. 2016*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): ~stable up to 2d at 4°C & room temp(*Furlanello et al. 2006*)
Hemoglobin	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at room temp(*Bourges-Abella et al. 2013*)
Hemoglobin	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
Hemoglobin	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher in summer(*Strasser et al. 2001*)
Hemoglobin	**Dog**	*Blood*	*Time variability*	●B(?): circannual acrophase in February-April(*Sothern et al. 1993*)
Hemoglobin	**Dog**	*Blood*	*Time variability*	●B(EDTA): slightly higher in evening than morning(*Widenhorn et al. 2011*)
Hemoglobin	**Dog**	*Blood*	*Transport*	●B(EDTA): increased for4d after a 1d flight and road transport(*Liang et al. 2018*)
Hemoglobin	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
Hgb glycated	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(Hep): ~same results; very moderate decrease au to 2wk at 4°C or room temp(*Lin et al. 2014*)
Hgb glycated	**Dog**	*Blood*	*Stability*	●B(EDTA): ~stable for 3d at 4°C; increased when stored longer or at 25°C(*Easley 1986*)

Homocysteine	**Dog**	*Blood*	*Anticoagulant*	●S: 20-30% higher than B(Hep), B(EDTA); little effects of lipemia and hemolysis; strongly increased by icterus(*Rossi et al. 2008*)
Homocysteine	**Dog**	*Blood*	*Other biological*	●P(?): ~25% decrease by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
Hydroxybutyrate	**Dog**	*Blood*	*Food*	●B($HClO_4$): increased by prolonged fasting(*Brady et al. 1977*)
IgA	**Dog**	*Blood*	*Exercise*	●S: lower in trained than raced and restedsled dogs(*McKenzie et al. 2010*)
IgA	**Dog**	*Blood*	*Other biological*	●S: variable with breed & environment (colony *vs*. owner's dogs)(*Griot-Wenk et al. 1999*)
IgA	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
IgA	**Dog**	*Feces*	*Sampling*	●F: mixing of 4 specimens more representative than single specimen(*Tress et al. 2006*)
IgA	**Dog**	*Saliva*	*Stress*	●Saliva: increased after acute stress in puppy German Shepherds; decreased in adults(*Svobodova et al. 2014*)
IgE	**Dog**	*Blood*	*Exercise*	●S: not different in rested, trained and raced sled dogs(*McKenzie et al. 2010*)
IgE	**Dog**	*Blood*	*Other biological*	●S: variable with breed & environment (colony *vs*. owner's dogs)(*Griot-Wenk et al. 1999*)
IGF-1	**Dog**	*Blood*	*Colour*	●S: decreased by hemolysis & lipemia; no effect of bilirubin(*Tvarijonaviciute et al. 2011*)
IGF-1	**Dog**	*Blood*	*Drugs*	●S: no effect within 1d of 1 or 5mg/kg methylprednisolone(*Tvarijonaviciute et al. 2011*)
IGF-1	**Dog**	*Blood*	*Exercise*	●S: lower in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
IGF-1	**Dog**	*Blood*	*Other biological*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
IGF-1	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
IGF-1	**Dog**	*Blood*	*Time variability*	●S: no circadian rhythm in fed or unfed dogs(*Tvarijonaviciute et al. 2011*)
IgG	**Dog**	*Blood*	*Exercise*	●S: lower in trained and raced sled dogs than in rested dogs(*McKenzie et al. 2010*)
IgG	**Dog**	*Blood*	*Other biological*	●S: not different after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
IgG	**Dog**	*Blood*	*Time variability*	●P(Hep): higher in summer(*Strasser et al. 2001*)
IgG	**Dog**	*Urine*	*Stability*	●U: intensely decreased after 4yr storage at -72°C(*Defauw et al. 2017*)
IgM	**Dog**	*Blood*	*Exercise*	●S: lower in trained and raced sled dogs than in rested dogs(*McKenzie et al. 2010*)
IgM	**Dog**	*Blood*	*Other biological*	●S: not different after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Insulin	**Dog**	*Blood*	*Anticoagulant*	●S, S(Sep+Acc), P(Hep), P(EDTA): ~same results(*Reimers et al. 1982*)
Insulin	**Dog**	*Blood*	*Drugs*	●S: increased after 6wk prednisolone(*Kovalik et al. 2012*)
Insulin	**Dog**	*Blood*	*Drugs*	●P(?): increased >50% by 12/20d topical and ototopical dexamethasone; back to base values after 1wk withdrawal(*Gottschalk et al. 2011*)
Insulin	**Dog**	*Blood*	*Drugs*	●S: ~not different with up to 8wk prednisone 1 & 2 mg/kg/d(*Nishii et al. 2006*)
Insulin	**Dog**	*Blood*	*Drugs*	●P(EDTA): ~80% decrease after 10 lg/kg dexmedetomidine IV(*Restitutti et al. 2012*)
Insulin	**Dog**	*Blood*	*Drugs*	●P(Hep): more increased after IV administration of xylitol than glucose, sorbitol or fructose; not different after mannitol; also increased after xylitol per os(*Kuzuya et al. 1969*)
Insulin	**Dog**	*Blood*	*Drugs*	●P(EDTA): ~not different during continuous infusion of medetomidine(*Lamont et al. 2012*)
Insulin	**Dog**	*Blood*	*Drugs*	●P(EDTA): not different after acepromazine pre-anesthesia; decreased after medetomidine(*Guedes and Rude 2013*)
Insulin	**Dog**	*Blood*	*Exercise*	●P(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
Insulin	**Dog**	*Blood*	*Exercise*	●P(EDTA): not different in working & pet Border Collies(*Downs et al. 1997*)
Insulin	**Dog**	*Blood*	*Exercise*	●P(EDTA): increased after moderate exercise; back to base approx.. 1h(*Menzies-Gow et al. 2014*)
Insulin	**Dog**	*Blood*	*Food*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
Insulin	**Dog**	*Blood*	*Food*	●P(?): post prandial increase with 4 different commercial food not completely back to base after 3h(*Nguyen et al. 1994*)
Insulin	**Dog**	*Blood*	*Food*	●S: lower after 6wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Insulin	**Dog**	*Blood*	*Food*	●P(EDTA): 24h fasting; no difference after high protein meal; increase starting at 30 min, peaking at 60 min (x8), back to base ~4hrs after high protein high glucose meal(*Hewson-Hughes et al. 2011*)
Insulin	**Dog**	*Blood*	*Food*	●P(Fl): 24h fasting; increased from 2 to 8 hrs after low, medium & high starch meals(*Hewson-Hughes et al. 2011*)

Insulin	**Dog**	*Blood*	*Food*	●P(Hep): post-prandial increase greatly dependent on carbohydrate source(*de-Oliveira et al. 2008*)
Insulin	**Dog**	*Blood*	*Food*	●S: increased after feeding, peak ~x3 at 3h(*Bhatti et al. 2006*)
Insulin	**Dog**	*Blood*	*Food*	●S: peak increase 1-2h after high-fat mixed-meal in overweight and lean dogs(*Soder et al. 2016*)
Insulin	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Insulin	**Dog**	*Blood*	*Other biological*	●S: increased with body score(*Kolodziejski et al. 2021*)
Insulin	**Dog**	*Blood*	*Other biological*	●P(?): ~2 times higher in obese than no-obese dogs(*Jeusette et al. 2005*)
Insulin	**Dog**	*Blood*	*Other biological*	●S: increased (+~80%) by obesity(*Veiga et al. 2008*)
Insulin	**Dog**	*Blood*	*Other technical*	●S: not different during acclimatization to repetitive blood sampling on 6wk(*Slaughter et al. 2002*)
Insulin	**Dog**	*Blood*	*Stability*	●S: decreased >20% from day 3 at room temp, ~15-20% from 1wk at 4°C, stable 1 mth at -20°C(*Oberg et al. 2011*)
Insulin	**Dog**	*Blood*	*Stability*	●P(Hep), P(EDTA): stable up to 3d at 4°C, 24h at room temp; unchanged in S by 8 freeze-thaw cycles(*Reimers et al. 1982*)
Insulin	**Dog**	*Blood*	*Stability*	●B(EDTA): rapidly unstable unless centrifuged(*Reimers et al. 1991*)
Insulin	**Dog**	*Saliva*	*Other biological*	●Saliva: overnight fasting; IV 0.5 g glucose/kg); increased at 15, 30 & 45 min(*Munoz-Prieto et al. 2019*)
Iron	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD): higher than P(Hep)(*Granat et al. 2017*)
Iron	**Dog**	*Blood*	*Drugs*	●S: ~2fold increase after 3d prednisolone(*Harvey et al. 1987*)
Iron	**Dog**	*Blood*	*Drugs*	●S: 50% and 120% increase from day 2 after 0.5 mg/kg BW, q12h or 2 mg/kg BW, q12h prednisolone ; back to base 3d after withdrawal(*Adamama-Moraitou et al. 2005*)
Iron	**Dog**	*Blood*	*Drugs*	●B(Hep): ~x3 on day1 after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Iron	**Dog**	*Blood*	*Exercise*	●S: ~30% decrease after endurance sled race(*Kenyon et al. 2011*)
Iron	**Dog**	*Blood*	*Exercise*	●S: 30% decrease 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Iron	**Dog**	*Blood*	*Food*	●S: ~30% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Iron	**Dog**	*Blood*	*Food*	●S: ~40% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs(*Rautenbach et al. 1987*)
Iron	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Iron	**Dog**	*Blood*	*Other biological*	●S: higher in blood donors than controls(*Zaldivar-Lopez et al. 2014*)
Iron	**Dog**	*Blood*	*Other biological*	●S: not different after repeated blood donations(*Ferreira et al. 2014*)
Iron	**Dog**	*Blood*	*Other biological*	●S: transient increase afte transfusion of 35d not of 3d stored concentrate; back to base after 24h(*Wurlod et al. 2015*)
Iron	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Iron	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Iron	**Dog**	*Blood*	*Time variability*	●S: 10-15% lower early in the morning than (*Harvey et al. 1987*)
Ketones	**Dog**	*Urine*	*Colour*	●U: dipstick results higher in dark pink or red urines; not different in pink to red and in yellow urines (*Vientos-Plotts et al. 2018*)
Lactate	**Dog**	*Blood*	*Anticoagulant*	●B(Hep): decreased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
Lactate	**Dog**	*Blood*	*Colour*	●S: <1% bias in hyperlipidemic specimens (dry chemistry); higher after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Lactate	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Lactate	**Dog**	*Blood*	*Drugs*	●S: ~x2 6h after anesthesia+minor surgery(*Saunders et al. 2009*)
Lactate	**Dog**	*Blood*	*Drugs*	●P(Hep): x2-4 from 4d prednisone(*Boysen et al. 2009*)
Lactate	**Dog**	*Blood*	*Drugs*	●P(Hep): not different 24h after sevoflurane anesthesia in dogs perfused with aminoacids before anesthesia(*Clark-Price et al. 2015*)
Lactate	**Dog**	*Blood*	*Drugs*	●B: ~x2 after charcoal/propylene glycol/glycerol; back to base after12h(*Burkitt et al. 2005*)
Lactate	**Dog**	*Blood*	*Drugs*	●S: dose-dependant decrease in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
Lactate	**Dog**	*Blood*	*Drugs*	●B(Hep): ~x2 increase after 10 lg/kg dexmedetomidine IV(*Restitutti et al. 2012*)
Lactate	**Dog**	*Blood*	*Exercise*	●B(?): no effect of 21 km race at 13 km/h(*Sanders and Bloor 1975*)

Lactate	**Dog**	*Blood*	*Exercise*	●P(Fl): no effect of stress by drug searching(*Strasser et al. 1993*)
Lactate	**Dog**	*Blood*	*Exercise*	●P(Perchloric acid): dramatic increase immediately after race in Greyhounds(*Snow et al. 1988*)
Lactate	**Dog**	*Blood*	*Exercise*	●P(Hep): 20% increase after 20 min exercise on underwater treadmill(*Miyata et al. 2023*)
Lactate	**Dog**	*Blood*	*Exercise*	●P(Fl): not different immediately after 13min submaximal exercise(*Bauer et al. 2012*)
Lactate	**Dog**	*Blood*	*Exercise*	●B: increased by treadmill moderate exercise(*Piccione et al. 2012*)
Lactate	**Dog**	*Blood*	*Exercise*	●P(Hep): ~x2 after agility test; back to base 30min later(*Rovira et al. 2007*)
Lactate	**Dog**	*Blood*	*Exercise*	●B(POCT): ~not changed by mild intensity endurance exercise(*Clero et al. 2015*)
Lactate	**Dog**	*Blood*	*Exercise*	●B(Hep): not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Lactate	**Dog**	*Blood*	*Exercise*	●P(Hep): increased immediately after agility test(*Baltzer et al. 2012*)
Lactate	**Dog**	*Blood*	*Food*	●B($HClO_4$): 2-3 fold decrease from 1d fasting(*Brady et al. 1977*)
Lactate	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): higher in Hep specimens(*Bachmann et al. 2018*)
Lactate	**Dog**	*Blood*	*Other technical*	●B: falsely increased by ethylene glycol catabolites by some methods(*Hopper and Epstein 2013*)
Lactate	**Dog**	*Blood*	*Sampling*	●B: poor correlation between ear capillary and jugular vein specimens(*Ferasin and Nguyenba 2008*)
Lactate	**Dog**	*Blood*	*Sampling*	●P(Hep): not different in jugular and bone marrow specimens(*Ackert et al. 2019*)
Lactate	**Dog**	*Blood*	*Sampling*	●B(Hep): ~5% & 20% higher in cephalic vein than femoral artery & jugular vein(*Hughes et al. 1999*)
Lactate	**Dog**	*Blood*	*Stability*	●P(Hep): increased from 20min at room temp; more increased in refrigerated aerobic than anaerobic specimens(*Reich et al. 2017*)
Lactate	**Dog**	*Blood*	*Stability*	●P(Fl): stable in blood tubes stored at 4 & 20°C and centrifuged up to 2 h after specimen collection(*Ferasin et al. 2007*)
Lactate	**Dog**	*Blood*	*Stability*	●B(POCT): 12 to 14 µmol/L/min mean increase at room temp. in healthy and shocked dogs(*Rizzo et al. 2020*)
Lactate	**Dog**	*Blood*	*Time variability*	●S: ~twice lower in July than in winter(*Walker et al. 2022*)
Lactate	**Dog**	*CSF*	*Drugs*	●CSF: decreased 3h after induction of anesthesia by propofol; increased with isoflurane(*Seisdedos et al. 2019*)
LDH	**Dog**	*Blood*	*Anticoagulant*	●S: higher than P(Hep)(*Thoresen et al. 1992*)
LDH	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*Leard et al. 1990*)
LDH	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*O'Neill and Feldman 1989*)
LDH	**Dog**	*Blood*	*Drugs*	●S: unchanged up to 2wk after 5h anesthesia with isoflurane or sevoflurane(*Yuan et al. 2012*)
LDH	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
LDH	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
LDH	**Dog**	*Blood*	*Exercise*	●S: ~50% increase after 21 km race at 13 km/h(*Sanders and Bloor 1975*)
LDH	**Dog**	*Blood*	*Exercise*	●S: mild decrease during long distance sled race(*Hinchcliff et al. 1993*)
LDH	**Dog**	*Blood*	*Exercise*	●S: x3 increase 1d after exercise in Greyhounds(*Lucas et al. 2015*)
LDH	**Dog**	*Blood*	*Exercise*	●P(Hep): ~x2 increase after agility test; stable up to 30min later(*Rovira et al. 2007*)
LDH	**Dog**	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
LDH	**Dog**	*Blood*	*Food*	●P(Hep): lower in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
LDH	**Dog**	*Blood*	*Food*	●S: not different in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
LDH	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
LDH	**Dog**	*Blood*	*Stability*	●S: higher than P(Hep); increased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
LDH	**Dog**	*Blood*	*Stability*	●S & P(Hep): decreased from 3mth storage at -20 & -70°C(*Thoresen et al. 1995*)
LDH	**Dog**	*Blood*	*Stability*	●S: increased if centrifugation delayed ≥1h(*Friedel and Mattenheimer 1970*)
LDH	**Dog**	*Blood*	*Stability*	●S: rapid decrease during storage at room temp; < 15 & 5% loss of activity after 1mth at -4 or -20°C(*Houle et al. 2015*)
LDH	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)

LDH	**Dog**	*Blood*	*Time variability*	●P(Hep): higher in winter(*Strasser et al. 2001*)
LDH	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in July-August(*Sothern et al. 1993*)
LDH	**Dog**	*CSF*	*Colour*	●CSF: altered from $6.6x10^6$ RBC/L iatrogenic blood contamination; LDH1 isoenzyme most affected(*Brune et al. 2023*)
LDH	**Dog**	*CSF*	*Stability*	●CSF: 30% loss of activity after 1d at room temp or 4°C; 15% loss at -20°C after 1d or 4wk(*Houle et al. 2015*)
LDH	**Dog**	*Prostatic fluid*	*Stability*	●PrFl: decreased after 7d at -18°C(*Umbach et al. 2019*)
LDH	**Dog**	*Saliva*	*Stability*	●Saliva: almost totally inactivated after 1mth at -20°C(*Ricci et al. 2018*)
LDH	**Dog**	*Urine*	*Food*	●U(18h): not different after food restriction(*Takamatsu et al. 2015*)
LDH isoenzymes	**Dog**	*Blood*	*Stability*	●S: unequally decreased by storage at room temp, 4 or -20°C(*Houle et al. 2015*)
LDH isoenzymes	**Dog**	*CSF*	*Stability*	●CSF: unequally decreased by storage at room temp, 4 or -20°C(*Houle et al. 2015*)
LDL	**Dog**	*Blood*	*Food*	●S: decreased after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
LDL	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Leptin	**Dog**	*Blood*	*Drugs*	●P(?): x~15 10h after dexamethasone + meal; not back to base after 24h; slower less intense effects in unfed state(*Nishii et al. 2006*)
Leptin	**Dog**	*Blood*	*Drugs*	●P(?): ~not different with up to 8wk prednisone 1 & 2 mg/kg/d(*Nishii et al. 2006*)
Leptin	**Dog**	*Blood*	*Drugs*	●S: increased from day 1 up to day 90 by daily oral hydrocortisone administration(*Choo et al. 2019*)
Leptin	**Dog**	*Blood*	*Drugs*	●S: not different up to 4wkws daily ingestion of 0.3 mg/kg melatonin in intact and castrated males(*Taheri et al. 2019*)
Leptin	**Dog**	*Blood*	*Drugs*	●S: increased after low dose (1mg/kg) & decreased after high dose (5 & 10 mg/kg) methylprednisolone(*Yilmaz et al. 2007*)
Leptin	**Dog**	*Blood*	*Food*	●S: lower after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Leptin	**Dog**	*Blood*	*Food*	●S: decreased by fasting; increased by dexamethasone(*Ishioka et al. 2002*)
Leptin	**Dog**	*Blood*	*Other biological*	●P(?): correlated with obesity(*Sagawa et al. 2002*)
Leptin	**Dog**	*Blood*	*Other biological*	●S: increased with body score(*Kolodziejski et al. 2021*)
Leptin	**Dog**	*Blood*	*Other biological*	●P(?): ~6 times higher in obese than no-obese dogs(*Jeusette et al. 2005*)
Leptin	**Dog**	*Blood*	*Other biological*	●S: no circadian rhythm in unfed state; post prandial increase in optimal weight and obese dogs, not in thin ones(*Nishii et al. 2006*)
Leptin	**Dog**	*Blood*	*Time variability*	●S: no circadian rhythm in fasted dogs; progressive increase after meal(~x4 after 5-8h)(*Ishioka et al. 2005*)
Leptin	**Dog**	*Blood*	*Time variability*	●CSF: no circadian rhythm in unfed state; post prandial increase obese dogs(*Nishii et al. 2006*)
Lipase & PLI	**Dog**	*Blood*	*Anticoagulant*	●P(?) & S: cPLI same results; cPLI stable in S up to 3wk at room temp, 4, -20 & -80°C(*Steiner et al. 2009*)
Lipase & PLI	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): ~not different(*Granat et al. 2017*)
Lipase & PLI	**Dog**	*Blood*	*Anticoagulant*	●P(Hep) & S: same results(*Medaille and Briend-Marchal 2004*)
Lipase & PLI	**Dog**	*Blood*	*Colour*	●S: cPLI unchanged by lipemia (<16 g/L TG), hemolysis (<5.2 g/L) & icterus (200 mg/L bilirubin); stable 12m at 2-7°C(*Huth et al. 2010*)
Lipase & PLI	**Dog**	*Blood*	*Colour*	●S: cPLI unchanged by lipemia & hemolysis mildly decreased by icterus(*Steiner et al. 2017*)
Lipase & PLI	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*O'Neill and Feldman 1989*)
Lipase & PLI	**Dog**	*Blood*	*Colour*	●S: no effect of bilirubin, lipids, Hb on in-clinic cPL assay(*Beall et al. 2011*)
Lipase & PLI	**Dog**	*Blood*	*Colour*	●S: increased by TG; decreased by Hb; unchanged by bilirubin(*Jacobs et al. 1992*)
Lipase & PLI	**Dog**	*Blood*	*Drugs*	●S: cPLI not different during and after 4wk prednisone(*Steiner et al. 2009*)
Lipase & PLI	**Dog**	*Blood*	*Drugs*	●S: decreased after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Lipase & PLI	**Dog**	*Blood*	*Drugs*	●S: increased by oral prednisolone(*Mendoza et al. 2020*)
Lipase & PLI	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Lipase & PLI	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Lipase & PLI	**Dog**	*Blood*	*Food*	●S: not different within 8h after meal in 12h fasted dogs(*Saver et al. 2021*)
Lipase & PLI	**Dog**	*Blood*	*Food*	●S: not different during 8h following meal(*Steiner et al. 2014*)

Lipase & PLI	Dog	*Blood*	*Food*	●P(?): not different after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
Lipase & PLI	Dog	*Blood*	*Food*	●S: cPLI ~not different up to 6h after meal(*James et al. 2009*)
Lipase & PLI	Dog	*Blood*	*Other biological*	●S: transient increase after endoscopic retrograde pancreatography(*Spillmann et al. 2004*)
Lipase & PLI	Dog	*Blood*	*Other biological*	●S: lipase & cPLI unchanged up to 2d after endoscopic fine needle aspiration of the pancreas(Kook, 2012)
Lipase & PLI	Dog	*Blood*	*Other biological*	●P(Hep): same in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Lipase & PLI	Dog	*Blood*	*Other technical*	●P(Hep): lower in up to 11mth expired tubes(*Domingos et al. 2012*)
Lipase & PLI	Dog	*Blood*	*Other technical*	●S: not different after fine-needle aspiration or surgical biopsy(*Cordner et al. 2010*)
Lipase & PLI	Dog	*Blood*	*Stability*	●S: cPLI stable up to 3wk at room temp, 4, -20 & -80°C(*Steiner et al. 2009*)
Lipase & PLI	Dog	*Blood*	*Stability*	●S & P(Hep): same results; unchanged if centrifugation delayed up to 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Lipase & PLI	Dog	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Lipase & PLI	Dog	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Lipase & PLI	Dog	*Blood*	*Time variability*	●S: circadian rhythm min 11am & max 11pm, indpdt of fasting/fed status(*Piccione et al. 2008*)
Lipoproteins	Dog	*Blood*	*Exercise*	●B(EDTA): higher in sedentary pet than working Border Collies(*Downs et al. 1997*)
Lipoproteins	Dog	*Blood*	*Food*	●S: no chylomicrons and lower VLDL after 24h fasting than after 6 or 12h(*de La Farge et al. 1987*)
Lymphocytes	Dog	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
Lymphocytes	Dog	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(EDTA): - ~50% after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(Hep): mildly decreased from day 1 after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(EDTA): decreased after a single IV 1mg/kg dose of prednisone, minimum at 6h; back to base at 24h(*Tvedten et al. 2022*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(EDTA): decreased from 30 min after induction of anesthesia by propofol with tramadol; not without tramadol(*Costa et al. 2013*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(EDTA): not changed after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Lymphocytes	Dog	*Blood*	*Drugs*	●B(?): %ge progressively decreased after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
Lymphocytes	Dog	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
Lymphocytes	Dog	*Blood*	*Exercise*	●B(EDTA): ~30% decrease by training of sled dogs; unchanged by exercise(*Davis et al. 2008*)
Lymphocytes	Dog	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Lymphocytes	Dog	*Blood*	*Exercise*	●B(EDTA): not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Lymphocytes	Dog	*Blood*	*Exercise*	●B(EDTA): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Lymphocytes	Dog	*Blood*	*Food*	●B(EDTA): decreased by low protein- low phosphate diet(*Polzin et al. 1991*)
Lymphocytes	Dog	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Lymphocytes	Dog	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
Lymphocytes	Dog	*Blood*	*Food*	●B(EDTA): ~20% higher in dogs living in low alimentary & sanitary conditions than in kenneled police dogs(*Rautenbach et al. 1987*)
Lymphocytes	Dog	*Blood*	*Food*	●B(?): decreased by food restriction(*Takamatsu et al. 2015*)
Lymphocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Lymphocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different after 5wk exposure to electromagnetic radiations from mobile phone; decreased on 10th wk(*Dong et al. 2022*)
Lymphocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
Lymphocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Lymphocytes	Dog	*Blood*	*Other biological*	●B(EDTA): %ge lower in obese and lean dogs(*Barić Rafaj et al. 2017*)

Lymphocytes	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Lymphocytes	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Lymphocytes	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
Lymphocytes	**Dog**	*Blood*	*Sampling*	●B(EDTA): lower in specimens from jugular vein than cephalic vein(*An et al. 2019*)
Lymphocytes	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
Lymphocytes	**Dog**	*Blood*	*Sampling*	●B(EDTA): same in jugular and cephalic vein(*Jensen et al. 1994*)
Lymphocytes	**Dog**	*Blood*	*Sampling*	●B(EDTA): clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 83 & 79 % differences >TEa(*Guarino et al. 2022*)
Lymphocytes	**Dog**	*Blood*	*Stability*	●B(EDTA): increased at room temp >> 4°C & after 2d post transport(*Fontaine et al. 1986*)
Lymphocytes	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at 4°C; decreased from 48h at room temp(*Furlanello et al. 2006*)
Lymphocytes	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at room temp(*Bourges-Abella et al. 2013*)
Lymphocytes	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
Lymphocytes	**Dog**	*Blood*	*Stress*	●P(Hep): higher on day 10 than at entrance in shelter; no effect of daily 30 min petting sessions(*Dudley et al. 2015*)
Lymphocytes	**Dog**	*Blood*	*Time variability*	●B(EDTA): lower in winter(*Strasser et al. 2001*)
Lymphocytes	**Dog**	*Blood*	*Time variability*	●B(?): circannual acrophase in December-January(*Sothern et al. 1993*)
Lymphocytes	**Dog**	*Blood*	*Time variability*	●B(EDTA): lower at 7am; max at 7-11pm(*Lilliehook 1997*)
Lymphocytes	**Dog**	*Blood*	*Transport*	●B(EDTA): decreased by road & air transport(*Bergeron et al. 2002*)
Lymphocytes	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after a 1d flight and road transport; increased on the following days(*Liang et al. 2018*)
Lymphocytes	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
Lymphocytes	**Dog**	*CSF*	*Anticoagulant*	●CSF: total cell count and morphology not different in specimens collected in plain or EDTA tubes(*Koch et al. 2019*)
Lymphocytes	**Dog**	*CSF*	*Stability*	●CSF: decreased from 12h at 4°C; stabilized by fetal calf serum or hexastarch(*Fry et al. 2006*)
Lysozyme	**Dog**	*Saliva*	*Stability*	●Saliva: time-related decrease during storage at -20°C883
Macrophages	**Dog**	*BAL*	*Sampling*	●BAL: lower percentage in first of 5 consecutive boluses(*Hawkins and Berry 1999*)
Magnesium (ionized)	**Dog**	*Blood*	*Food*	●S: not different in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Magnesium (ionized)	**Dog**	*Blood*	*Food*	●P(Hep): unchanged by overnight fasting(*Brainard et al. 2007*)
Magnesium (ionized)	**Dog**	*Blood*	*Stability*	●S(anaerobically): stable for 8 hours at 22ºC, < 24 hours at 4ºC, and < 1 week at –20ºC(*Unterer et al. 2004*);
Magnesium (ionized)	**Dog**	*Blood*	*Stability*	●S decreased by exposure to air(*Unterer et al. 2004*)
Magnesium (ionized)	**Dog**	*Blood*	*Time variability*	●P(Hep): higher in summer(*Strasser et al. 2001*)
Magnesium (total)	**Dog**	*Blood*	*Colour*	●S: 6% bias in hyperlipidemic specimens (dry chemistry); lower after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Magnesium	**Dog**	*Blood*	*Colour*	●B(Hep): ~not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Magnesium (total)	**Dog**	*Blood*	*Drugs*	●S: iincreased after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Magnesium (total)	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Magnesium (total)	**Dog**	*Blood*	*Exercise*	●S: lower after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Magnesium (total)	**Dog**	*Blood*	*Exercise*	●S: not different after 7km race of Greyhounds(*Tharwat et al. 2014*)
Magnesium (total)	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Magnesium (total)	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Magnesium (total)	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Magnesium (total)	**Dog**	*Blood*	*Stability*	●S: ~unchanged for 4d at 4°C & room temp & when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Magnesium (total)	**Dog**	*Blood*	*Stability*	●S & P(Hep): same results; increased if centrifugation delayed 3d; decreased from 1d in separated S or P(Hep)(*Thoresen et al. 1992*)

Magnesium (total)	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Magnesium (total)	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Magnesium (total)	**Dog**	*Hair*	*Sampling*	●Hair: higher in dark than light hair; higher in dogs fed mixed diets than in dogs fed raw or dry diets(*Rosendahl et al. 2022*)
Magnesium (total)	**Dog**	*Prostatic fluid*	*Stability*	●PrFl: not different after 7d at -18°C(*Umbach et al. 2019*)
Magnesium (total)	**Dog**	*Saliva*	*Exercise*	●Saliva: increased with in running Huskies in mid-distance races(*Templeman et al. 2020*)
MCH	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): not diferent(*Granat et al. 2017*)
MCH	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Hep) same results; ~10% higher in P(Cit)(*Bauer et al. 2012*)
MCH	**Dog**	*Blood*	*Drugs*	●B(?): decreased by 8wk high dose trimethoprim+ sulfadiazine(*Lording and Bellamy 1978*)
MCH	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
MCH	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
MCH	**Dog**	*Blood*	*Drugs*	●B(?): not different after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
MCH	**Dog**	*Blood*	*Exercise*	●B(Hep): unchanged by strenuous exercise(*Dzhelebov et al. 2008*)
MCH	**Dog**	*Blood*	*Exercise*	●B(EDTA): unchanged by treadmill moderate exercise(*Piccione et al. 2012*)
MCH	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
MCH	**Dog**	*Blood*	*Exercise*	●B(EDTA): unchanged by training & exercise of sled dogs(*Davis et al. 2008*)
MCH	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
MCH	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs living in low alimentary & sanitary conditions and in kenneled police dogs(*Rautenbach et al. 1987*)
MCH	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
MCH	**Dog**	*Blood*	*Food*	●B(EDTA): not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
MCH	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
MCH	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
MCH	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
MCH	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles; except glycofurol &DMSO on day 1(*Ruble et al. 2006*)
MCH	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
MCH	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
MCH	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
MCH	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
MCH	**Dog**	*Blood*	*Stability*	●B(EDTA): stable 3d at 4 & 25°C(*Pastor et al. 1997*)
MCH	**Dog**	*Blood*	*Stability*	●B(EDTA): ~unchanged by hemolysis(*O'Neill and Feldman 1989*)
MCH	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 3d at room temp(*Prins et al. 2009*)
MCH	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at 4°C & room temp(*Furlanello et al. 2006*)
MCH	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at room temp(*Bourges-Abella et al. 2013*)
MCH	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
MCH	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher in winter(*Strasser et al. 2001*)
MCH	**Dog**	*Blood*	*Time variability*	●B(EDTA): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
MCH	**Dog**	*Blood*	*Time variability*	●B(?): circannual acrophase in February-March(*Sothern et al. 1993*)
MCH	**Dog**	*Blood*	*Transport*	●B(EDTA): increased after a 1d flight and road transport(*Liang et al. 2018*)
MCHC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
MCHC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Hep) same results; ~10% higher in P(Cit)(*Bauer et al. 2012*)

MCHC	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*O'Neill and Feldman 1989*)
MCHC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
MCHC	**Dog**	*Blood*	*Drugs*	●B(EDTA): ~not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
MCHC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different up to 12h after acepromazine or xylazine(*Sutil et al. 2017*)
MCHC	**Dog**	*Blood*	*Drugs*	●B(?): not different after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(Hep): unchanged by strenuous exercise(*Dzhelebov et al. 2008*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(Hep): unchanged by training in Greyhounds(*McKeever et al. 1985*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(EDTA): unchanged by treadmill moderate exercise(*Piccione et al. 2012*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(EDTA): unchanged by training & exercise of sled dogs(*Davis et al. 2008*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~not different after race(*Horvath et al. 2014*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
MCHC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
MCHC	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs living in low alimentary & sanitary conditions and in kenneled police dogs(*Rautenbach et al. 1987*)
MCHC	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
MCHC	**Dog**	*Blood*	*Food*	●B(EDTA): not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
MCHC	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
MCHC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
MCHC	**Dog**	*Blood*	*Other biological*	●B(EDTA): ~not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
MCHC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
MCHC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after repeated blood donations(*Ferreira et al. 2014*)
MCHC	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
MCHC	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles; except glycofurol, ethanol &DMSO on days 1 or 7(*Ruble et al. 2006*)
MCHC	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
MCHC	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
MCHC	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
MCHC	**Dog**	*Blood*	*Sampling*	●B(EDTA): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
MCHC	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased at room temp > 4°C & after 2d post transport(*Fontaine et al. 1986*)
MCHC	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from 16h at room temp(*Prins et al. 2009*)
MCHC	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from 12h at room temp & 24h at 4°C(*Furlanello et al. 2006*)
MCHC	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
MCHC	**Dog**	*Blood*	*Time variability*	●P(Hep): lower in summer(*Strasser et al. 2001*)
MCHC	**Dog**	*Blood*	*Time variability*	●B(?): circannual acrophase in February-March(*Sothern et al. 1993*)
MCHC	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after a 1d flight and road transport; increased on the following days(*Liang et al. 2018*)
MCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Hep) same results; ~10% higher in P(Cit)(*Bauer et al. 2012*)
MCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
MCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): higher than in B(CTAD)(*Norman et al. 2001*)
MCV	**Dog**	*Blood*	*Colour*	●S: decreased by hemolysis(*O'Neill and Feldman 1989*)
MCV	**Dog**	*Blood*	*Drugs*	●B(?): decreased by 8wk high dose trimethoprim +sulfadiazine(*Lording and Bellamy 1978*)

MCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): ~not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
MCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
MCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different up to 12h after acepromazine or xylazine(*Sutil et al. 2017*)
MCV	**Dog**	*Blood*	*Drugs*	●B(?): not different after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
MCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
MCV	**Dog**	*Blood*	*Drugs*	●B(?): ~not different after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
MCV	**Dog**	*Blood*	*Exercise*	●B(Hep): unchanged by strenuous exercise(*Dzhelebov et al. 2008*)
MCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~not different after race(*Horvath et al. 2014*)
MCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
MCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
MCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
MCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): unchanged by training & exercise of sled dogs(*Davis et al. 2008*)
MCV	**Dog**	*Blood*	*Food*	●B(EDTA): unchanged by treadmill moderate exercise(*Piccione et al. 2012*)
MCV	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
MCV	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
MCV	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
MCV	**Dog**	*Blood*	*Food*	●B(EDTA): not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
MCV	**Dog**	*Blood*	*Food*	●B(?): ~not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
MCV	**Dog**	*Blood*	*Food*	●B(EDTA): lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs(*Rautenbach et al. 1987*)
MCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
MCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
MCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
MCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after repeated blood donations(*Ferreira et al. 2014*)
MCV	**Dog**	*Blood*	*Other technical*	●B(EDTA): falsely increased when measured by hematology analyzers in case of hyperosmolarity(*Reinhart et al. 2015*)
MCV	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles; except dimethylacetamide, ethanol &DMSO on days 1 and 7(*Ruble et al. 2006*)
MCV	**Dog**	*Blood*	*Other technical*	●B(EDTA): ~not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
MCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
MCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
MCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): 5-7 fL higher in samples received by post than in fresh samples(*Hinton and Jones 1978*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased at room temp > 4°C & after 2d post transport(*Fontaine et al. 1986*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): progressive increase over 2d at room temp(*Medaille et al. 2006*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): ~stable 3d at 4°C; increased from 1d at 25°C(*Pastor et al. 1997*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): unchanged up to 6 hrs at 24°C and 3d at 4°C; increased at 24h and and 4d respectively(*Nemeth et al. 2009*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased from 16h at room temp(*Prins et al. 2009*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased from 12h at 4°C & room temp(*Furlanello et al. 2006*)
MCV	**Dog**	*Blood*	*Stability*	●B(EDTA): moderately increased after 2d at room temp(*Bourges-Abella et al. 2013*)
MCV	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
MCV	**Dog**	*Blood*	*Time variability*	●B(EDTA): lower in spring(*Strasser et al. 2001*)

MCV	Dog	*Blood*	*Time variability*	●B(?): no circannual variations(*Sothern et al. 1993*)
MCV	Dog	*Blood*	*Transport*	●B(EDTA): increased after a 1d flight and road transport(*Liang et al. 2018*)
MDH	Dog	*Blood*	*Stability*	●S: increased if centrifugation delayed ≥1h(*Friedel and Mattenheimer 1970*)
microRNAs	Dog	*Blood*	*Colour*	●S: increased by hemolysis(*Aguilera-Rojas et al. 2022*)
microRNAs	Dog	*Feces*	*Stability*	●F: less stable at room temp than at -20°C; not different according to day of sampling(*Cirera et al. 2018*)
Monocytes	Dog	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
Monocytes	Dog	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
Monocytes	Dog	*Blood*	*Drugs*	●B(EDTA): x2 after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)
Monocytes	Dog	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Monocytes	Dog	*Blood*	*Drugs*	●B(EDTA): not different during anesthesia by propofol with or without tramadol(*Costa et al. 2013*)
Monocytes	Dog	*Blood*	*Drugs*	●B(EDTA): increased after a single IV 1mg/kg dose of prednisone, peaking at 6h; ~back to base at 12h(*Tvedten et al. 2022*)
Monocytes	Dog	*Blood*	*Drugs*	●B(EDTA): not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Monocytes	Dog	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Monocytes	Dog	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
Monocytes	Dog	*Blood*	*Exercise*	●B(EDTA): ~x2 increase by training of sled dogs(*Davis et al. 2008*)
Monocytes	Dog	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Monocytes	Dog	*Blood*	*Exercise*	●B(EDTA): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Monocytes	Dog	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
Monocytes	Dog	*Blood*	*Food*	●B(EDTA): not different in dogs living in low alimentary & sanitary conditions and in kenneled police dogs(*Rautenbach et al. 1987*)
Monocytes	Dog	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Monocytes	Dog	*Blood*	*Food*	●B(?): decreased by food restriction(*Takamatsu et al. 2015*)
Monocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Monocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different after 5wk exposure to electromagnetic radiations from mobile phone; decreased on 10th wk(*Dong et al. 2022*)
Monocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Monocytes	Dog	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
Monocytes	Dog	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Monocytes	Dog	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Monocytes	Dog	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
Monocytes	Dog	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
Monocytes	Dog	*Blood*	*Sampling*	●B: same results at cephalic and marginal ear veins(*Jacobsen and Jensen 1998*)
Monocytes	Dog	*Blood*	*Sampling*	●B(EDTA): clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 33 & 37 % differences >TEa(*Guarino et al. 2022*)
Monocytes	Dog	*Blood*	*Stability*	●B(EDTA): decreased at room temp & after 2d post transport; stable at 4°C(*Fontaine et al. 1986*)
Monocytes	Dog	*Blood*	*Stability*	●B(EDTA): decreased after 2d at room temp(*Bourges-Abella et al. 2013*)
Monocytes	Dog	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
Monocytes	Dog	*Blood*	*Stress*	●P(Hep): higher or not different on day 10 than at entrance in shelter; no effect of daily 30 min petting sessions(*Dudley et al. 2015*)
Monocytes	Dog	*Blood*	*Time variability*	●B(EDTA): higher in winter(*Strasser et al. 2001*)
Monocytes	Dog	*Blood*	*Time variability*	●B(EDTA): no circannual variations(*Sothern et al. 1993*)
Monocytes	Dog	*Blood*	*Transport*	●B(EDTA): increased after a 1d flight and road transport(*Liang et al. 2018*)
Monocytes	Dog	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)

Monocytes	**Dog**	*CSF*	*Anticoagulant*	●CSF: monocytes/macrophages ratio not different in specimens collected in plain or EDTA tubes(*Koch et al. 2019*)
Monocytes	**Dog**	*CSF*	*Stability*	●CSF: decreased from 12h at 4°C; stabilized by fetal calf serum or hexastarch(*Fry et al. 2006*)
MPC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): higher than B(Cit)(*Stokol and Erb 2007*)
MPC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): higher than B(Cit); increase with storage lower at 37°C that at 4°C(*Handagama et al. 1986*)
MPC	**Dog**	*Blood*	*Colour*	●B(EDTA): decreased by hemolysis(*Bauer et al. 2010*)
MPC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
MPC	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from 16h at room temp(*Prins et al. 2009*)
MPV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): ~not different from B(Cit) & B(CTAD)(*Norman et al. 2001*)
MPV	**Dog**	*Blood*	*Anticoagulant*	●B(CTAD): lower than B(EDTA)(*Granat et al. 2017*)
MPV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): lower than B(Cit)(*Stokol and Erb 2007*)
MPV	**Dog**	*Blood*	*Anticoagulant*	●B(Cit) & B(ACD): not different(*Callan et al. 2009*)
MPV	**Dog**	*Blood*	*Drugs*	●B(?): not different after up to 28d oral melatonin treatment(*Chen and Stone 2019*)
MPV	**Dog**	*Blood*	*Drugs*	●B(Cit): progressive decrease by daily oral ticlopidine (62 mg/kg)(*Boudreaux and Zerbe 1991*)
MPV	**Dog**	*Blood*	*Exercise*	●B(EDTA): decreased after 13min submaximal exercise(*Bauer et al. 2012*)
MPV	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~unchanged by training & exercise of sled dogs(*Davis et al. 2008*)
MPV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
MPV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
MPV	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
MPV	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
MPV	**Dog**	*Blood*	*Stability*	●B(EDTA): ~stable 3d at 4&25°C(*Pastor et al. 1997*)
MPV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased from 2d at room temp(*Prins et al. 2009*)
MPV	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at 4°C; increased from 24h at room temp(*Furlanello et al. 2006*)
MPV	**Dog**	*Blood*	*Stability*	●B(EDTA): not different up to 4h at room temp and 24h at refrigeration(*Jaguezeski et al. 2020*)
MPV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased from d1 by storage at 4°C or room temp(*Mathers et al. 2012*)
MPV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased after 2d at room temp(*Bourges-Abella et al. 2013*)
MPV	**Dog**	*Blood*	*Time variability*	●B(?): circannual acrophase in October-December(*Sothern et al. 1993*)
MPV	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after a 1d flight and road transport (*Liang et al. 2018*)
Myeloperoxidase	**Dog**	*Blood*	*Stability*	●P(EDTA): moderate but irregular changes over 3d at 4-10°C(*Chu and Stokol 2021*)
Myoglobin	**Dog**	*Blood*	*Exercise*	●S: increased at mid-race and back to baseafter race of sled dogs(*Devall et al. 2018*)
NAG	**Dog**	*Urine*	*Drugs*	●U: NAG/Cr ~unchanged by ketoprofen (1mg/kg daily) for up to 30d(*Narita et al. 2005*)
NAG	**Dog**	*Urine*	*Drugs*	● U: NAG/Cr not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
NAG	**Dog**	*Urine*	*Food*	●U: decreased after feeding in males (~not in females); decreased in males by vasectomy & castration(*Higashiyama et al. 1983*)
NAG	**Dog**	*Urine*	*Food*	●U(18h): not different after food restriction(*Takamatsu et al. 2015*)
NAG	**Dog**	*Urine*	*Other biological*	●U: higher in males than in females(*Nakamura et al. 1983*)
NAG	**Dog**	*Urine*	*Other technical*	●U: NAG/Cr independent of urine pH(*Brunker et al. 2009*)
NAG	**Dog**	*Urine*	*Stability*	●U: irregular changes after gel filtration; stable up to 1mth at 4 & -18°C(*Reusch et al. 1991*)
NAG	**Dog**	*Urine*	*Stability*	●U: same in voided and cystocentesis urine; decreased after 4mth at -20°C, 12mth at-80°C; not protected by protease inhibitor(*Smets et al. 2010*)
NAG	**Dog**	*Urine*	*Stability*	●U: not different after 5d at 4°C or 30d at -20°C; decreased after 30d at 4°C and 5d at -20°C(*Smee et al. 2016*)
NAG	**Dog**	*Urine*	*Time variability*	●U: no circadian changes(*Uechi et al. 1994*)

NEFA	**Dog**	*Blood*	*Drugs*	●P(EDTA): ~60% decrease after 10 lg/kg dexmedetomidine IV(*Restitutti et al. 2012*)
NEFA	**Dog**	*Blood*	*Exercise*	●P(EDTA): strongly increased immediately and 30min after race in Greyhounds(*Snow et al. 1988*)
NEFA	**Dog**	*Blood*	*Exercise*	●S: x3.5 increase after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
NEFA	**Dog**	*Blood*	*Food*	●S: ~5 times higher after 24h fasting than after 6 or 12h(*de La Farge et al. 1987*)
NEFA	**Dog**	*Blood*	*Food*	●P(?): ~30% increase during 12d fasting; back to base after refeeding(*Lemieux and Plante 1968*)
NEFA	**Dog**	*Blood*	*Food*	●S: decreased from 1h after high-fat mixed-meal in overweight and lean dogs; still low after 4h(*Soder et al. 2016*)
NEFA	**Dog**	*Blood*	*Food*	●P(?): x3-4 increase from 1d fasting(*Brady et al. 1977*)
NEFA	**Dog**	*Blood*	*Other biological*	●P(EDTA): ~1.5 higher in obese than non-obese dogs(*Jeusette et al. 2005*)
NEFA	**Dog**	*Blood*	*Other biological*	●S: increased with body score(*Kolodziejski et al. 2021*)
NEFA	**Dog**	*Blood*	*Other biological*	●P(?): not correlated with obesity(*Sagawa et al. 2002*)
NEFA	**Dog**	*Blood*	*Stability*	●P(Hep): stable frozen >1mth; no effect of repeated freezing-thawing(*Smith et al. 1977*)
NEFA	**Dog**	*Blood*	*Transport*	●P(Hep): increased by 30min simulated transport; increase is reduced by repeats; back to base at 30min(*Locatelli et al. 1989*)
Neutrophils	**Dog**	*BAL*	*Sampling*	●BAL: higher percentage in first of 5 consecutive boluses(*Hawkins and Berry 1999*)
Neutrophils	**Dog**	*BAL*	*Sampling*	●BAL: higher with succion pump than manual aspiration (*Woods et al. 2013*)
Neutrophils	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep): same results(*Bauer et al. 2012*)
Neutrophils	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): no effect of low-dose ketamine(*DeClue et al. 2008*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different during anesthesia by propofol with or without tramadol(*Costa et al. 2013*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): peak increase 12h after ovariohysterectomy (x3.5): not back to base on day 5; unchanged by carprofen or meloxicam(*Kum et al. 2013*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(Hep): increased on day 1 then decreased after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased after a single IV 1mg/kg dose of prednisone, peaking at 6h; back to base at 24h(*Tvedten et al. 2022*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased by ototopical dexamethasone(*Abraham et al. 2005*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(?): %ge progressively increased after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
Neutrophils	**Dog**	*Blood*	*Drugs*	●B(EDTA): peak increase 12h after ovariohysterectomy (x3.5): not back to base on day 5; unchanged by carprofen or meloxicam(*Kum et al. 2013*)
Neutrophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
Neutrophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~30% increase by training of sled dogs; more increased after exercise(*Davis et al. 2008*)
Neutrophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased after race; more increased after 2h(*Horvath et al. 2014*)
Neutrophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Neutrophils	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Neutrophils	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Neutrophils	**Dog**	*Blood*	*Food*	●S: progressively increased by fasting(*Bertolucci et al. 2008*)
Neutrophils	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw and pasteurized preparations; lower in sterilized food(*Cai et al. 2022*)
Neutrophils	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs living in low alimentary & sanitary conditions and in kenneled police dogs(*Rautenbach et al. 1987*)
Neutrophils	**Dog**	*Blood*	*Food*	●B(?): decreased by food restriction(*Takamatsu et al. 2015*)
Neutrophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
Neutrophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 5wk exposure to electromagnetic radiations from mobile phone; decreased on 10th wk(*Dong et al. 2022*)

Neutrophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Neutrophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): not significantly different but lower in normal weight than overweight and obese dogs(*Forster et al. 2018*)
Neutrophils	**Dog**	*Blood*	*Other biological*	●B(EDTA): higher in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Neutrophils	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Neutrophils	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Neutrophils	**Dog**	*Blood*	*Sampling*	●B(EDTA): mildly lower from vacuum tube in jugular vein than capillary tube in cephalic vein(*Reynolds et al. 2008*)
Neutrophils	**Dog**	*Blood*	*Sampling*	●B(EDTA): same in jugular and cephalic vein(*Jensen et al. 1994*)
Neutrophils	**Dog**	*Blood*	*Sampling*	●B(EDTA): mostly not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 11 & 52% differences >TEa(*Guarino et al. 2022*)
Neutrophils	**Dog**	*Blood*	*Stability*	●B(EDTA): increased at room temp, 4°C & after 2d post transport(*Fontaine et al. 1986*)
Neutrophils	**Dog**	*Blood*	*Stability*	●B(EDTA): false positive toxic neutrophils after 2h at room temp., 4h at 4°C and 8h in box with ice pack(*Bau-Gaudreault and Grimes 2019*)
Neutrophils	**Dog**	*Blood*	*Stability*	●B(EDTA): ~stable up to 2d at 4°C & room temp(*Furlanello et al. 2006*)
Neutrophils	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at room temp(*Bourges-Abella et al. 2013*)
Neutrophils	**Dog**	*Blood*	*Stress*	●P(Hep): higher on day 10 than at entrance in shelter; no effect of daily 30 min petting sessions(*Dudley et al. 2015*)
Neutrophils	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
Neutrophils	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher in autumn(*Strasser et al. 2001*)
Neutrophils	**Dog**	*Blood*	*Time variability*	●B(?): no circannual variations(*Sothern et al. 1993*)
Neutrophils	**Dog**	*Blood*	*Time variability*	●B(EDTA): lower at 7am; max ~20% higher from 11am to 7pm(*Lilliehook 1997*)
Neutrophils	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after a 1d flight and road transport (*Liang et al. 2018*)
Neutrophils	**Dog**	*Blood*	*Transport*	●B(EDTA): N/L ratio increased after single or repeated 1 hr road transport(*Herbel et al. 2020*)
Neutrophils	**Dog**	*CSF*	*Anticoagulant*	●CSF: not different in specimens collected in plain or EDTA tubes(*Koch et al. 2019*)
Neutrophils	**Dog**	*CSF*	*Stability*	●CSF: decreased from 12h at 4°C; stabilized by fetal calf serum or hexastarch(*Fry et al. 2006*)
Neutrophils	**Dog**	*Synovia*	*Sampling*	●Synovia: not different in 4 repeated specimens at 3wk interval; not different according to joint(*Berg et al. 2009*)
Occult blood	**Dog**	*Feces*	*Food*	●F: no false posives of the guiac test due to gastrointestinal or hypoallergenic special diets(*Pierini et al. 2020*)
Occult blood	**Dog**	*Feces*	*Food*	●F: possible false positive with canned meat diets(*Cook et al. 1992*)
Osmolality	**Dog**	*Blood*	*Anticoagulant*	●B(Hep) slighthly higher than P(Hep)(*Odunayo and Kerl 2011*)
Osmolality	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Osmolality	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased after prednisone (2x0.55 mg/kg/d)(*Corrigan et al. 2010*)
Osmolality	**Dog**	*Blood*	*Drugs*	●S: ~15% increase after charcoal/propylene glycol/glycerol; back to base after24h(*Burkitt et al. 2005*)
Osmolality	**Dog**	*Blood*	*Drugs*	●S: still increased 90 min after hypertonic saline solution(*Kim et al. 2020*)
Osmolality	**Dog**	*Blood*	*Drugs*	●S: not different after up to 4wk etodolac 13.7 mg/kg/d(*Panciera and Johnston 2002*)
Osmolality	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
Osmolality	**Dog**	*Blood*	*Drugs*	●P(Hep): increased by xylazine or medetomidine(*Talukder and Hikasa 2009*)
Osmolality	**Dog**	*Blood*	*Drugs*	●P(Hep): increased by medetomidin; back to base ~5h(*Talukder et al. 2009*)
Osmolality	**Dog**	*Blood*	*Stability*	● P(Hep): mild irregular changes during frozen storage for up to 1wk(*Odunayo and Kerl 2011*)
Osmolality	**Dog**	*Blood*	*Stability*	●S: not different after 1wk storage at -20 & -80°C; slightly decreased from 2wk storage(*Reinhart et al. 2016*)
Osmolality	**Dog**	*Urine*	*Drugs*	●U: decreased by demetomidine(*Ribeiro Villela et al. 2005*)
Osmolality	**Dog**	*Urine*	*Drugs*	●U: not different up to 3h after rehydration with 6% hydroxyethyl starch 130/0.4 or 4% succinylated gelatine(*Yam et al. 2019*)
Osmolality	**Dog**	*Urine*	*Drugs*	●U: intensely decreased (:~3) after xylazine; back to base after ~5h(*Talukder et al. 2009*)
Osmolality	**Dog**	*Urine*	*Drugs*	●U: decreased by xylazine or medetomidine(*Talukder and Hikasa 2009*)

Osmolality	**Dog**	*Urine*	*Drugs*	●U: intense decrease by medetomidine; back to base ~6h(*Talukder et al. 2009*)
Osmolality	**Dog**	*Urine*	*Drugs*	●U: similar decrease after infusion of saline or hetastarch(*Smart et al. 2009*)
Osmolality	**Dog**	*Urine*	*Exercise*	●U: unchanged by training in Greyhounds(*McKeever et al. 1985*)
Osmolality	**Dog**	*Urine*	*Food*	●U: decreased by low protein- low phosphate diet(*Polzin et al. 1991*)
Osmolality	**Dog**	*Urine*	*Food*	●U(18h): not different after food restriction(*Takamatsu et al. 2015*)
Osmolality	**Dog**	*Urine*	*Stability*	●U: not different after 1wk storage at -20 & -80°C; slightly decreased from 2wk storage(*Reinhart et al. 2016*)
Osmotic fragility	**Dog**	*Blood*	*Anticoagulant*	●B(Hep) & B(EDTA): identical results(*Barascud et al. 1988*)
Osmotic fragility	**Dog**	*Blood*	*Colour*	●B(EDTA): fragility higher in hyperlipemic specimens(*Behling-Kelly and Collins-Cronkright 2014*)
Osmotic fragility	**Dog**	*Blood*	*Food*	●B(Hep): not different between fasting and fat-fed dogs(*Swank and Roth 1954*)
Osmotic fragility	**Dog**	*Blood*	*Stability*	●B(EDTA): ~unchanged up to 2d storage at 4°C(*Behling-Kelly and Collins-Cronkright 2014*)
Osteocalcin	**Dog**	*Blood*	*Exercise*	●S: not different after 7km race of Greyhounds(*Tharwat et al. 2014*)
Osteocalcin	**Dog**	*Blood*	*Food*	●S: not different in dogs fed diet enriched with protein, calcium, n-3 fatty acids & antioxidants for up to 18 mth(*Schoenherr et al. 2010*)
Oxalate	**Dog**	*Urine*	*Food*	●dU: unchanged after 24h fasting(*Lulich et al. 1991*)
Oxytocin	**Dog**	*Blood*	*Exercise*	●P(EDTA): resting concentration decreased after season of recreational musching; moderately increased at end of a mushing trip(*Leggieri et al. 2019*)
Oxytocin	**Dog**	*Saliva*	*Other biological*	●Saliva: increased by 5min stroking of guide dogs; not different after isolation(*Ogi et al. 2020*)
Oxytocin	**Dog**	*Saliva*	*Sampling*	●Saliva: increased by stroking in dogs accepting the sponge; decreased in dogs showing difficulties(*Lopez-Arjona et al. 2021*)
Oxytocin	**Dog**	*Urine*	*Stress*	●U: Oxytocin/creatinine increased after positive stimuli(*Mitsui et al. 2011*)
Paraoxonase	**Dog**	*Blood*	*Anticoagulant*	●S: higher than P(EDTA)(*Tvarijonaviciute et al. 2012*)
Paraoxonase	**Dog**	*Blood*	*Stability*	●S: not different for 3d at 4 or 25°C; 1yr at -20 or -80°C(*Rubio et al. 2018*)
Parathormone	**Dog**	*Blood*	*Food*	●S: not different after 8wk diet supplementation with calcidiol(*Backus and Foster 2021*)
Parathormone	**Dog**	*Blood*	*Other biological*	●S: not different on day following knee surgery and 2mth later(*Clements et al. 1995*)
Parathormone	**Dog**	*Blood*	*Time variability*	●P(EDTA) : no seasonal effect in Scotland(*Hurst et al. 2020*)
pCO2	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
pCO2	**Dog**	*Blood*	*Drugs*	●B: not changed after charcoal/propylene glycol/glycerol(*Burkitt et al. 2005*)
pCO2	**Dog**	*Blood*	*Drugs*	●B(Hep): isoflurane anesthetized dogs; increased 5min after injection of 15 mL/kg hydroxyethylstarch in saline not in a polyionic solution(*Adamik et al. 2018*)
pCO2	**Dog**	*Blood*	*Drugs*	●B: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
pCO2	**Dog**	*Blood*	*Drugs*	●B: not different with time & dose in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
pCO2	**Dog**	*Blood*	*Exercise*	●B(Hep): decreased after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
pCO2	**Dog**	*Blood*	*Food*	●B(Hep): lower in 24h than in 4h post-prandial specimens(*Lawler et al. 1992*)
pCO2	**Dog**	*Blood*	*Other biological*	●B: increased when CO_2 abdominal insufflation(*Duerr et al. 2008*)
pCO2	**Dog**	*Blood*	*Other technical*	●B(Hep): not different with cold and warm cartridges of an electrochemical POCT(*Looney et al. 1998*)
pCO2	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): lower in Hep specimens(*Bachmann et al. 2018*)
pCO2	**Dog**	*Blood*	*Other technical*	●B(Hep): decreased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
pCO2	**Dog**	*Blood*	*Sampling*	●B(Hep): higher in venous than arterial blood(*Lawler et al. 1992*)
pCO2	**Dog**	*Blood*	*Sampling*	●P(Hep): not different in jugular and bone marrow specimens(*Ackert et al. 2019*)
pCO2	**Dog**	*Blood*	*Sampling*	●B: lower in carotid artery than jugular or cephalic vein(*Ilkiw et al. 1991*)
pCO2	**Dog**	*Blood*	*Stability*	●B(Hep): not different if sampled aerobically or non aerobically and analyzed within 10 min; decreased at 48h(*Brennan et al. 2006*)
pCO2	**Dog**	*Blood*	*Stability*	●B(Hep): ~not different after up to 6h storage in ice in plastic syringes(*Rezende et al. 2007*)

pCO2	**Dog**	*Blood*	*Stability*	●B(Hep): ~ stable up to 30 min at room temp. in sealed tubes (*Richey et al. 2004*)
pCO2	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
PCT	**Dog**	*Blood*	*Anticoagulant*	●B(CTAD): lower than B(EDTA)(*Granat et al. 2017*)
PCT	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): higher after addition of PGE1 or Iloprost(*Tvedten et al. 2015*)
PCT	**Dog**	*Blood*	*Drugs*	●B(?): not different after up to 28d oral melatonin treatment(*Chen and Stone 2019*)
PCT	**Dog**	*Blood*	*Stability*	●B(EDTA): not different up to 6h at room temp and at refrigeration(*Jaguezeski et al. 2020*)
PCT	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at 4°C & room temp(*Furlanello et al. 2006*)
PCT	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from d1 by storage at 4°C or room temp(*Mathers et al. 2012*)
PCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): PCV & HCT not different(*Tamborini et al. 2014*)
PCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): slightly lower than B(Hep)(*Tamborini et al. 2014*)
PCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): progressively decreasing with underfilling of tubes(*Ross and Dickinson 2021*)
PCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Hep): same results; ~20% higher in P(Cit)(*Bauer et al. 2012*)
PCV	**Dog**	*Blood*	*Anticoagulant*	●B(Cit): mildly higher in 3.2 than 3.8% citrate(*Morales et al. 2007*)
PCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
PCV	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): decreased with increasing concentrations of EDTA(*Penny et al. 1970*)
PCV	**Dog**	*Blood*	*Colour*	●B(EDTA): decreased by hemolysis(*O'Neill and Feldman 1989*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from 30 min after induction of anesthesia by propofol with & without tramadol; then stable for 1h(*Costa et al. 2013*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from 15 min to 12h after acepromazine, decreased 30 & 60 min after xylazine(*Sutil et al. 2017*)
PCV	**Dog**	*Blood*	*Drugs*	●B(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d 0.5 mg/kg BW, q12h or 2 mg/kg BW, q12h prednisolone ; decreased 2d after withdrawal in low dose group(*Adamama-Moraitou et al. 2005*)
PCV	**Dog**	*Blood*	*Drugs*	●B(?): decreased by 8wk high dose trimethoprim+sulfadiazine(*Lording and Bellamy 1978*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased after IV glucose administration(*Gonzales et al. 2011*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 2wk prednisone ± acetylsalicylic acid(*O'Kell et al. 2012*)
PCV	**Dog**	*Blood*	*Drugs*	●B: unchanged by perfusion of crystaloids or 5% glucose during surgery(*Gaynor et al. 1996*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased after 14d 1mg/kg per day prednisone; ~back to base on day 35(*Masters et al. 2018*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 2 or 4wk clopidogrel or prednisone or clopidogrel+prednisone(*Thomason et al. 2020*)
PCV	**Dog**	*Blood*	*Drugs*	●B(?): progressive decrease (max 1h) after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
PCV	**Dog**	*Blood*	*Drugs*	●B(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): transient decrease 5min after rehydration fluid; back to base at 3h(*Reuteler et al. 2017*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d aspirin (2x10 mg/kg), carprofen (4.4 mg/kg), deracoxib(2 mg/kg) or meloxicam (0.1 mg/kg)(*Blois et al. 2010*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased for 3d following IV administration of 0.8 x 10^{10}/kg BW platelet-like nanoparticles; not different at higher doses(*Guillaumin et al. 2022*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): mildly decreased after acepromazine before surgery(*Hauptman et al. 2000*)
PCV	**Dog**	*Blood*	*Drugs*	●B(?): decreased after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment(*Frendin et al. 2006*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)

PCV	**Dog**	*Blood*	*Drugs*	●B(Hep): ~not different after 2wk furosemide or torsemide(*Hori et al. 2007*)
PCV	**Dog**	*Blood*	*Drugs*	●B(Hep): unchanged after furosemide & azosemide(*Hori et al. 2008*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): ~unchanged by repeated unfactionated heparin(*Mischke et al. 2001*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): time & dose-dependant decrease in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
PCV	**Dog**	*Blood*	*Drugs*	●B(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
PCV	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased 3h after 7.5 ml/kg Hb-glutamer; back to base at 8h(*Kerl and Langdon 2007*)
PCV	**Dog**	*Blood*	*Exercise*	●B(Hep): unchanged by training in Greyhounds(*McKeever et al. 1985*)
PCV	**Dog**	*Blood*	*Exercise*	●B(Hep): decreased from 2d after strenuous exercise(*Dzhelebov et al. 2008*)
PCV	**Dog**	*Blood*	*Exercise*	●B(?): ~10% increase after 21 km race at 13 km/h(*Sanders and Bloor 1975*)
PCV	**Dog**	*Blood*	*Exercise*	●B(?): resting value decreased 10-15% by 24wk-training in sled dogs(*Querengaesser et al. 1994*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased immediately and 30min after race in Greyhounds(*Snow et al. 1988*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): not changed during long distance sled race(*Hinchcliff et al. 1993*)
PCV	**Dog**	*Blood*	*Exercise*	●B: mildly increased by treadmill moderate exercise(*Piccione et al. 2012*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): decreased after endurance sled race(*Kenyon et al. 2011*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in working & pet Border Collies(*Downs et al. 1997*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): mildly increased immediately after agility test; decreased 15 & 30min later(*Rovira et al. 2007*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): decreased by training & exercise of sled dogs(*Davis et al. 2008*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): lower in dogs trained for long distance aerobic effort(*Arokoski et al. 1993*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased after race; back to base after 2h(*Horvath et al. 2014*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
PCV	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased immediately after agility test; back to base or below after 4h(*Baltzer et al. 2012*)
PCV	**Dog**	*Blood*	*Exercise*	●B(Hep): not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
PCV	**Dog**	*Blood*	*Food*	●B(EDTA): lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs(*Rautenbach et al. 1987*)
PCV	**Dog**	*Blood*	*Food*	●B: unchanged by low protein- low phosphate diet(*Polzin et al. 1991*)
PCV	**Dog**	*Blood*	*Food*	●B(EDTA): higher after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
PCV	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
PCV	**Dog**	*Blood*	*Food*	●B(?): ~not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
PCV	**Dog**	*Blood*	*Food*	●B(EDTA): not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
PCV	**Dog**	*Blood*	*Food*	●B(EDTA): decreased in 30% of cases of starvation(*Pointer et al. 2013*)
PCV	**Dog**	*Blood*	*Food*	●B: not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
PCV	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
PCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
PCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
PCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after repeated blood donations(*Ferreira et al. 2014*)
PCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
PCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
PCV	**Dog**	*Blood*	*Other biological*	●B(EDTA): decreased by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
PCV	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles; except ethanol on day 7(*Ruble et al. 2006*)

PCV	**Dog**	*Blood*	*Other technical*	●B(Hep): not different with cold and warm cartridges of an electrochemical POCT(*Looney et al. 1998*)
PCV	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
PCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
PCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): mildly lower from vacuum tube in jugular vein than capillary tube in cephalic vein(*Reynolds et al. 2008*)
PCV	**Dog**	*Blood*	*Sampling*	●P(Hep): microhematocrit not different in jugular and bone marrow specimens; iSTAT measurement higher in jugular specimen(*Ackert et al. 2019*)
PCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): same in jugular and cephalic vein(*Jensen et al. 1994*)
PCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): ~20% lower in arterial than venous specimen(*Palsgaard-Van Lue et al. 2007*)
PCV	**Dog**	*Blood*	*Sampling*	●B(EDTA): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 3 & 15 % differences >TEa(*Guarino et al. 2022*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): 3-5% higher in samples received by post than in fresh samples(*Hinton and Jones 1978*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): no effect of transport and storage for 24h at 4-10°C(*Hayashi et al. 1995*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased at room temp > 4°C & after 2d post transport(*Fontaine et al. 1986*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA K3): less than 2SD difference after 1d; more stable than EDTA K2 and EDTA Na, less stable than B(Hep) : 54hrs(*Falconer and Chapman 1977*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2.5d at room temp.; increased from 24h at 4°C(*Athanasiou et al. 2016*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): 16% increase over 3d in mailing conditions(*Grenn et al. 1976*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): stable 3d at 4 & increased from 1d at 25°C(*Pastor et al. 1997*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased from 16h at room temp(*Prins et al. 2009*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): increased from 12h at 4°C & room temp(*Furlanello et al. 2006*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): moderately increased after 2d at room temp(*Bourges-Abella et al. 2013*)
PCV	**Dog**	*Blood*	*Stability*	●B(EDTA): stable for 2d at 4°C; increased 10% after 1d at room temp.(*Penny et al. 1970*)
PCV	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher in summer(*Strasser et al. 2001*)
PCV	**Dog**	*Blood*	*Time variability*	●B(?): no circannual variations(*Sothern et al. 1993*)
PCV	**Dog**	*Blood*	*Transport*	●B(EDTA): increased after a 1d flight and road transport(*Liang et al. 2018*)
PCV	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
PDW	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(Cit): not different(*Stokol and Erb 2007*)
PDW	**Dog**	*Blood*	*Anticoagulant*	●B(CTAD): lower than B(EDTA)(*Granat et al. 2017*)
PDW	**Dog**	*Blood*	*Drugs*	●B(?): not different after up to 28d oral melatonin treatment(*Chen and Stone 2019*)
PDW	**Dog**	*Blood*	*Stability*	●B(EDTA): increased from d1 by storage at 4°C or room temp(*Mathers et al. 2012*)
PDW	**Dog**	*Blood*	*Stability*	●B(EDTA): not different up to 4h at room temp and 24h at refrigeration(*Jaguezeski et al. 2020*)
PDW	**Dog**	*Blood*	*Stability*	●B(EDTA): increased after 2d at room temp(*Bourges-Abella et al. 2013*)
Pepsinogen	**Dog**	*Blood*	*Food*	●S: +40-50% increase 1 to 7h following meal(*Suchodolski et al. 2003*)
pH	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): higher than P(ACD)(*Callan et al. 2009*)
pH	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
pH	**Dog**	*Blood*	*Drugs*	●B: decreased from 1h after charcoal/propylene glycol/glycerol; back to base after 24h(*Burkitt et al. 2005*)
pH	**Dog**	*Blood*	*Drugs*	●B: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
pH	**Dog**	*Blood*	*Drugs*	●B(Hep)(venous): not different 24h after sevoflurane anesthesia in dogs perfused with aminoacids before anesthesia(*Clark-Price et al. 2015*)
pH	**Dog**	*Blood*	*Drugs*	●B(Hep): isoflurane anesthetized dogs; not different after injection of 15 mL/kg hydroxyethylstarch in saline or a polyionic solution(*Adamik et al. 2018*)
pH	**Dog**	*Blood*	*Drugs*	●B: not different with time & dose in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
pH	**Dog**	*Blood*	*Exercise*	●B(Hep): increased after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
pH	**Dog**	*Blood*	*Food*	●B(Hep): not different in 24h and 4h post-prandial specimens(*Lawler et al. 1992*)

pH	**Dog**	*Blood*	*Food*	●B(?): not different after 12d fasting(*Lemieux and Plante 1968*)
pH	**Dog**	*Blood*	*Other biological*	●B: decreased when CO_2 abdominal insufflation(*Duerr et al. 2008*)
pH	**Dog**	*Blood*	*Other technical*	●B(Hep): not different with cold and warm cartridges of an electrochemical POCT(*Looney et al. 1998*)
pH	**Dog**	*Blood*	*Other technical*	●B(Hep): unchanged if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
pH	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): higher in Hep specimens(*Bachmann et al. 2018*)
pH	**Dog**	*Blood*	*Other technical*	●B(Hep): not different if sampled aerobically or non aerobically and analyzed within 10 min; unstable at 48h(*Brennan et al. 2006*)
pH	**Dog**	*Blood*	*Sampling*	●B: higher in carotid artery than jugular or cephalic vein(*Ilkiw et al. 1991*)
pH	**Dog**	*Blood*	*Sampling*	●P(Hep): not different in jugular and bone marrow specimens(*Ackert et al. 2019*)
pH	**Dog**	*Blood*	*Sampling*	●B(Hep): lower in venous than arterial blood(*Lawler et al. 1992*)
pH	**Dog**	*Blood*	*Stability*	●B(Hep): ~not different after up to 6h storage in ice in plastic syringes(*Rezende et al. 2007*)
pH	**Dog**	*Blood*	*Stability*	●B(Hep): ~ stable up to 30 min at room temp. in sealed tubes (*Richey et al. 2004*)
pH	**Dog**	*Blood*	*Stress*	●B(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
pH	**Dog**	*Feces*	*Food*	●F: not different for 4 wk feeding with a quercetin, bromelain, and Lentinula edodes additive(*Atuahene et al. 2023*)
pH	**Dog**	*Gastric fluid*	*Drugs*	●GF: increased by omeprazole(*Lotti et al. 2021*)
pH	**Dog**	*Peritoneal fluid*	*Other biological*	●PF: ~unchanged when CO_2 abdominal insufflation(*Duerr et al. 2008*)
pH	**Dog**	*Urine*	*Colour*	●U: dipstick ~not different in pink to red and in yellow urines(*Vientos-Plotts et al. 2018*)
pH	**Dog**	*Urine*	*Drugs*	●U: decreased after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
pH	**Dog**	*Urine*	*Drugs*	●U: decreased by xylazine or medetomidine(*Talukder and Hikasa 2009*)
pH	**Dog**	*Urine*	*Exercise*	●U: increased 30 min after searching exercise in trained military dogs(*Spinella et al. 2023*)
pH	**Dog**	*Urine*	*Exercise*	●U: not different after a 5km walk in 30-40 min at 25°C(*Paslawska et al. 2020*)
pH	**Dog**	*Urine*	*Food*	●U: not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
pH	**Dog**	*Urine*	*Food*	●U: moderately increased after 12d fasting(*Lemieux and Plante 1968*)
pH	**Dog**	*Urine*	*Other technical*	●U: not different before and after centrifugation(*Athanasiou et al. 2018*)
pH	**Dog**	*Urine*	*Stability*	●U: test strip measurement stable up to 72h in native urine stored at 4°C and in urine stored in Vacutainer urine tubes at room temp.(*Aulakh et al. 2020*)
pH	**Dog**	*Urine*	*Stability*	●U: unchanged at 22 & 3°C for 24d(*Albasan et al. 2003*)
pH	**Dog**	*Urine*	*Time variability*	●U: no circadian changes(*Uechi et al. 1994, Uechi et al. 1997*)
Phenobarbital	**Dog**	*Blood*	*Anticoagulant*	●S: time-dependant decrease if collected into separation tubes(*Boothe et al. 1996*)
Phosphate	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep), mildly higher than P(EDTA), P(Fl), P(Cit)(*Ceron et al. 2004*)
Phosphate	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD): lower than P(Hep)(*Granat et al. 2017*)
Phosphate	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*Leard et al. 1990*)
Phosphate	**Dog**	*Blood*	*Colour*	●S(Act): increased during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Phosphate	**Dog**	*Blood*	*Colour*	●S: increased by hemolysis(*O'Neill and Feldman 1989*)
Phosphate	**Dog**	*Blood*	*Colour*	●S: 9% bias in hyperlipidemic specimens (dry chemistry); higher after LipoClear; lower after high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Phosphate	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Phosphate	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Phosphate	**Dog**	*Blood*	*Drugs*	●S: ~30% increase from 1h after 7.5 ml/kg Hb-glutamer, back to base after 3d(*Kerl and Langdon 2007*)
Phosphate	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mSg/kg per day prednisone(*Masters et al. 2018*)
Phosphate	**Dog**	*Blood*	*Drugs*	●P(Hep): isoflurane anesthetized dogs; increased from 5min after injection of 15 mL/kg hydroxyethylstarch in saline or a polyionic solution; still increased after 3hrs(*Adamik et al. 2018*)

Phosphate	**Dog**	*Blood*	*Drugs*	●S: ~not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Phosphate	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Phosphate	**Dog**	*Blood*	*Drugs*	●P(Hep): unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
Phosphate	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Phosphate	**Dog**	*Blood*	*Drugs*	●S: decreased after amiodarone(*Bicer et al. 2002*)
Phosphate	**Dog**	*Blood*	*Drugs*	●S: not different after 7wk prednisolone(*Kovalik et al. 2012*)
Phosphate	**Dog**	*Blood*	*Exercise*	●S: unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Phosphate	**Dog**	*Blood*	*Exercise*	●S: transient increase during long distance sled race(*Hinchcliff et al. 1993*)
Phosphate	**Dog**	*Blood*	*Exercise*	●S: unchanged by 5d endurance sled race(*McKenzie et al. 2007*)
Phosphate	**Dog**	*Blood*	*Exercise*	●S: increased 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Phosphate	**Dog**	*Blood*	*Exercise*	●S: lower after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Phosphate	**Dog**	*Blood*	*Exercise*	●P(Hep): immediately after and more 4h after agility test(*Baltzer et al. 2012*)
Phosphate	**Dog**	*Blood*	*Exercise*	●S: not different after 7km race of Greyhounds(*Tharwat et al. 2014*)
Phosphate	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Phosphate	**Dog**	*Blood*	*Food*	●S: not different in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Phosphate	**Dog**	*Blood*	*Food*	●P(Hep): not different after 8wk diet supplementation with calcidiol(*Backus and Foster 2021*)
Phosphate	**Dog**	*Blood*	*Food*	●S: not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Phosphate	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Phosphate	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Phosphate	**Dog**	*Blood*	*Food*	●S: not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
Phosphate	**Dog**	*Blood*	*Food*	●S: lower after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Phosphate	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Phosphate	**Dog**	*Blood*	*Food*	●P(?): ~20% higher after 6 than 16h fasting(*Matsuzawa and Sakazume 1994*)
Phosphate	**Dog**	*Blood*	*Food*	●S: decreased after food restriction(*Takamatsu et al. 2015*)
Phosphate	**Dog**	*Blood*	*Other biological*	●S: lower in normal weight than mildly to moderately overweight dogs(*Vieira et al. 2022*)
Phosphate	**Dog**	*Blood*	*Other biological*	●S: x10 on day following knee surgery; back to base 2mth later(*Clements et al. 1995*)
Phosphate	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Phosphate	**Dog**	*Blood*	*Other biological*	●P(?): not different in dogs>10 yr-old and 2-5 yr-old(*Aguilera-Tejero et al. 1998*)
Phosphate	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Phosphate	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Phosphate	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Phosphate	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Phosphate	**Dog**	*Blood*	*Stability*	●S: regular increase up to 15 % in 4d at 4°C; x4 at room temp & x3 when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Phosphate	**Dog**	*Blood*	*Stability*	●S & P(Hep): same results; increased if centrifugation delayed 1d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Phosphate	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Phosphate	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Phosphate	**Dog**	*Blood*	*Time variability*	●P(Hep) : no seasonal effect in Scotland(*Hurst et al. 2020*)
Phosphate	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Phosphate	**Dog**	*Prostatic fluid*	*Stability*	●PrFl: not different after 7d at -18°C(*Umbach et al. 2019*)

Phosphate	**Dog**	*Saliva*	*Exercise*	●Saliva: decreased in running Huskies in mid-distance races(*Templeman et al. 2020*)
Phosphate	**Dog**	*Saliva*	*Stability*	●Saliva: not different after 3mth at -20°C; increased at 6mth(*Ricci et al. 2018*)
Phosphate	**Dog**	*Urine*	*Other biological*	●U: excretion and clearance increase by volume expansion(*Massry et al. 1969*)
Phospholipids	**Dog**	*Blood*	*Food*	●S: ~same after 24h fasting as after 6 or 12h(*de La Farge et al. 1987*)
Phospholipids	**Dog**	*Blood*	*Food*	●P(?): ~10% higher after 6 than 16h fasting(*Matsuzawa and Sakazume 1994*)
Phospholipids	**Dog**	*Blood*	*Food*	●S: decreased after food restriction(*Takamatsu et al. 2015*)
Phospholipids	**Dog**	*Blood*	*Time variability*	●S: no circadian rhythm in fasted dogs(*Bertolucci et al. 2008*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): one case of EDTA-related pseudothrombo-cytopenia(*Wills and Wardrop 2008*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(?): clumping ~2 times more frequent in citrate than EDTA (*Mylonakis et al. 2008*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): higher in many specimens after addition of PGE1 or Iloprost(*Tvedten et al. 2015*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(CTAD): lower than B(EDTA)(*Granat et al. 2017*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): not different from B(Cit), lower than in B(CTAD)(*Norman et al. 2001*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): mildly higher than B(Cit)(*Stokol and Erb 2007*)
Platelets	**Dog**	*Blood*	*Anticoagulant*	●B(Cit) & B(ACD): not different(*Callan et al. 2009*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(?): not different after up to 28d oral melatonin treatment(*Chen and Stone 2019*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different up to 12h after acepromazine or xylazine(*Sutil et al. 2017*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(Cit): unchanged by treatment with cephalexin, amoxicillin & enrofloxacin for 1wk(*Webb et al. 2006*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): ~not different after 2 or 4wk clopidogrel or prednisone or clopidogrel+prednisone(*Thomason et al. 2020*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d aspirin (2x10 mg/kg), carprofen (4.4 mg/kg), deracoxib(2 mg/kg) or meloxicam (0.1 mg/kg)(*Blois et al. 2010*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different during IV glucose administration(*Gonzales et al. 2011*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): transient decrease 5min after rehydration fluid; back to base at 3h(*Reuteler et al. 2017*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): ~20% increaseafter vincristine; %ge reticulated platelets increased(*Allen et al. 2021*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(?): progressive decrease (max 1h) after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased for 3d following IV administration of 0.8 x 10^{10}/kg BW platelet-like nanoparticles; not different at higher doses(*Guillaumin et al. 2022*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(?): not different up to 24h after meloxicam before ovariohysterectomy surgery(*Fresno et al. 2005*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): unchanged by carprofen before isoflurane anesthesia+surgery(*Bergmann et al. 2005*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased by vincristine treatment of dogs wityh lymphoma(*Campbell et al. 2019*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): ~unchanged by repeated unfractionated heparin(*Mischke et al. 2001*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
Platelets	**Dog**	*Blood*	*Drugs*	●B(Cit): progressive increase by daily oral ticlopidine (62 mg/kg)(*Boudreaux and Zerbe 1991*)
Platelets	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
Platelets	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Platelets	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~unchanged after race(*Horvath et al. 2014*)

Platelets	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~unchanged by training of sled dogs(*Krogh et al. 2014*)
Platelets	**Dog**	*Blood*	*Exercise*	●B(EDTA): unchanged by treadmill moderate exercise(*Piccione et al. 2012*)
Platelets	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Platelets	**Dog**	*Blood*	*Food*	●B(EDTA): not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Platelets	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
Platelets	**Dog**	*Blood*	*Food*	●B(EDTA): higher after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Platelets	**Dog**	*Blood*	*Food*	●B(EDTA): increased in 40% of cases of starvation(*Pointer et al. 2013*)
Platelets	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Platelets	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
Platelets	**Dog**	*Blood*	*Other biological*	●B(EDTA): falsely low count in case of macrothrombocytosis(*Olsen et al. 2004*)
Platelets	**Dog**	*Blood*	*Other biological*	●B(EDTA): higher in obese than lean dogs(*Barić Rafaj et al. 2017*)
Platelets	**Dog**	*Blood*	*Other biological*	●B(EDTA): not significantly different but lower in normal weight thanoverweight and obese dogs(*Forster et al. 2018*)
Platelets	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after repeated blood donations(*Ferreira et al. 2014*)
Platelets	**Dog**	*Blood*	*Other biological*	●B(EDTA): same in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Platelets	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Platelets	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Platelets	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different for up to 3d in specimens from in-dwelling jugular catheter and direct venipuncture(*Kielb Basile et al. 2021*)
Platelets	**Dog**	*Blood*	*Other technical*	●B(EDTA): mildly increased when specimen pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Platelets	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
Platelets	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
Platelets	**Dog**	*Blood*	*Sampling*	●B(EDTA): ~20% lower in arterial than venous specimen(*Palsgaard-Van Lue et al. 2007*)
Platelets	**Dog**	*Blood*	*Sampling*	●B(EDTA): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 2 & 6 % differences >TEa(*Guarino et al. 2022*)
Platelets	**Dog**	*Blood*	*Stability*	●B(?): clumping; ~3 times more frequent in blood stored at 4 than 25°C; increases with storage duration(*Mylonakis et al. 2008*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): not different up to 2h at room temp and 6h at refrigeration(*Jaguezeski et al. 2020*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from day 1 at room temp(*Medaille et al. 2006*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): no effect of transport and storage for 24h at 4-10°C(*Hayashi et al. 1995*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from 6th h at 4°C; slightly decreased up to 3d at 25°C(*Pastor et al. 1997*)
Platelets	**Dog**	*Blood*	*Stability*	●B(Cit): same results with 3.2 & 3.8% citrate(*Morales et al. 2007*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 3d at room temp(*Prins et al. 2009*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d & 4d at room temp & 4°C(*Furlanello et al. 2006*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from 5h at room temp & 12h at 4°C(*Athanasiou et al. 2016*)
Platelets	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased after 2d at room temp(*Bourges-Abella et al. 2013*)
Platelets	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher at end of afternoon than end of night(*Widenhorn et al. 2011*)
Platelets	**Dog**	*Blood*	*Time variability*	●(B?): no circannual variations(*Sothern et al. 1993*)
Platelets	**Dog**	*Blood*	*Transport*	●B(EDTA): decreased after a 1d flight and road transport(*Liang et al. 2018*)
Platelets	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
Plt aggregation	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): ~15% lower with 3.2 than 3.8% citrate(*Morales et al. 2007*)
Plt aggregation	**Dog**	*Blood*	*Anticoagulant*	●B(Cit): lower than B(Hep) or B(Hirudin)(*Defontis et al. 2012*)
Plt aggregation	**Dog**	*Blood*	*Anticoagulant*	●B(Hirudin): higher than B(Cit)(*Kalbantner et al. 2010*)

Plt aggregation	**Dog**	*Blood*	*Anticoagulant*	●B(Hirudin): at 40 & 80 min storage not different from B(Hep) at 15 and 60 min(*Heimgartner et al. 2022*)
Plt aggregation	**Dog**	*Blood*	*Anticoagulant*	●B(Hirudin): higher than B(Hep) and B(Cit)(*Marschner et al. 2012*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d aspirin (2x10 mg/kg), carprofen (4.4 mg/kg), or meloxicam (0.1 mg/kg)(*Blois et al. 2010*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(EDTA): unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after vincristine treatment(*Allen et al. 2021*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased by aspirin & carprofen, not by deracoxib & meloxicam(*Brainard et al. 2007*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): aggregation more decreased by aspirin+fish oil than aspirin alone(*Westgarth et al. 2018*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): decreased by 5d-carprofen treatment(*Hickford et al. 2001*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): decreased by 4d acetylsalicylic acid(*Nielsen et al. 2007*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): decreased by low-dose aspirin(0.5 mg/kg/d)(*Sharpe et al. 2010*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): not different after 2wk aspirin (5mg/kg/48h) or meloxicam (0.05 mg/kg/24h)(*Cathcart et al. 2012*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): not different after ≥5d ketoprofen or carprofen(*Gaal et al. 2007*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): decreased by cyclosporin(*Thomason et al. 2012*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): not different after meloxicam; decreased by dipyirone; more intensely by dipyrone+meloxicam(*Zanuzzo et al. 2015*)
Plt aggregation	**Dog**	*Blood*	*Drugs*	●B(Cit): decreased by low dose aspirin in 1/3 of dogs(*Dudley et al. 2013*)
Plt aggregation	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Plt aggregation	**Dog**	*Blood*	*Other technical*	●B(Hirudin): independent of diameter of catheter(*Bauer et al. 2011*)
Plt aggregation	**Dog**	*Blood*	*Stability*	●B(Hirudin): ~not different for up to 8h; decreased at 24h(*Minde and Mischke 2014*)
Plt aggregation	**Dog**	*Blood*	*Stability*	●B(Cit): delayed when PCV low(*Clancey et al. 2009*)
Plt aggregation	**Dog**	*Blood*	*Stability*	●B(Hep): AUC not different when aliquoted agonists ADP or arachidonic acid stored up to 6mth at -20 or -80°C(*Shropshire and Olver 2018*)
pO2	**Dog**	*Blood*	*Drugs*	●B: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
pO2	**Dog**	*Blood*	*Drugs*	●B: not different with time & dose in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
pO2	**Dog**	*Blood*	*Other biological*	●B(Hep): ~unchanged in dogs at 3500m altitude(*Glaus et al. 2004*)
pO2	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): higher in Hep specimens(*Bachmann et al. 2018*)
pO2	**Dog**	*Blood*	*Other technical*	●B(Hep): increased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
pO2	**Dog**	*Blood*	*Sampling*	●B: ~twice higher in carotid artery than jugular or cephalic vein(*Ilkiw et al. 1991*)
pO2	**Dog**	*Blood*	*Stability*	●B(Hep): increased from 30 & 120min storage in ice in 1 & 3mL plastic syringes(*Rezende et al. 2007*)
pO2	**Dog**	*Blood*	*Stress*	●B(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
Potassium	**Dog**	*Blood*	*Anticoagulant*	●B(Hep): decreased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
Potassium	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD): lower than P(Hep)(*Granat et al. 2017*)
Potassium	**Dog**	*Blood*	*Anticoagulant*	●S: mildly higher than P(Hep); lower in P(Cit); impossible in P(EDTA), P(Fl)(*Ceron et al. 2004*)
Potassium	**Dog**	*Blood*	*Anticoagulant*	●P(Hep) & B(Hep): ~same results with Reflovet(*Trumel et al. 2003*)
Potassium	**Dog**	*Blood*	*Colour*	●S: <5-10% change by TG up to 10g/L, bilirubin up to 600mg/L, Hb up to 4g/L (*Jacobs et al. 1992*)
Potassium	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Potassium	**Dog**	*Blood*	*Colour*	●S: 6% bias in hyperlipidemic specimens (dry chemistry); lower after LipoClear; higher after high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Potassium	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): isoflurane anesthetized dogs; 10% increase 1 nad 3 hrs after injection of 15 mL/kg hydroxyethylstarch in saline not in a polyionic solution(*Adamik et al. 2018*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: -15% after prednisone 2.2 mg/kg, bid for 7 wks.(*Waters et al. 1997*)

Potassium	**Dog**	*Blood*	*Drugs*	●B(POCT): dose dependent decrease by albuterol inhalation; nadir between 30 and 60 min(*Ogrodny et al. 2022*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: ~not different after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient increase after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: not different after treatment by torsemide or furosemide(*Potter et al. 2019*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: still decreased 90 min after hypertonic saline solution(*Kim et al. 2020*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after prednisone (2x0.55 mg/kg/d)(*Corrigan et al. 2010*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 2wk furosemide or torsemide(*Hori et al. 2007*)
Potassium	**Dog**	*Blood*	*Drugs*	●B(Hep): unchanged after furosemide & 10-20% decreased after azosemide(*Hori et al. 2008*)
Potassium	**Dog**	*Blood*	*Drugs*	●B: transient 10% decrease 1h after charcoal/propylene glycol/glycerol(*Burkitt et al. 2005*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): time-related decreased in dogs treated with methyprednisolone(*Baltar et al. 2016*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: not different after 7wk amiodarone(*Bicer et al. 2002*)
Potassium	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
Potassium	**Dog**	*Blood*	*Drugs*	●S: not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Potassium	**Dog**	*Blood*	*Exercise*	●S: not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Potassium	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Potassium	**Dog**	*Blood*	*Exercise*	●P(Hep): increased by training in Greyhounds(*McKeever et al. 1985*)
Potassium	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Potassium	**Dog**	*Blood*	*Exercise*	●S: decreased during & after long distance sled race(*Hinchcliff et al. 1993*)
Potassium	**Dog**	*Blood*	*Food*	●S: not different in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Potassium	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Potassium	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Potassium	**Dog**	*Blood*	*Food*	●S: not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Potassium	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Potassium	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Potassium	**Dog**	*Blood*	*Other biological*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
Potassium	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Potassium	**Dog**	*Blood*	*Other biological*	●S: increased in case of thrombocytemia(*Mandell et al. 1988*)
Potassium	**Dog**	*Blood*	*Other technical*	●B(Hep): not different with cold and warm cartridges of an electrochemical POCT(*Looney et al. 1998*)
Potassium	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Potassium	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Potassium	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): not different(*Bachmann et al. 2018*)
Potassium	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Potassium	**Dog**	*Blood*	*Other technical*	●S: higher (mean 0.3-0. 4 mmol/L) by enzymatic method than ISE or flame photometry; unchanged by hemolysis & hyperproteinemia(*Bernardini et al. 2009*)
Potassium	**Dog**	*Blood*	*Other technical*	●S: higher than P(Hep) related to platelet count(*Degen 1986*)

Potassium	**Dog**	*Blood*	*Sampling*	●P(Hep): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
Potassium	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 18 & 11% differences >TEa(*Guarino et al. 2022*)
Potassium	**Dog**	*Blood*	*Sampling*	●P(Hep): lower in jugular than bone marrow specimens(*Ackert et al. 2019*)
Potassium	**Dog**	*Blood*	*Sampling*	●S: slightly higher in jugular than cephalic vein(*Jensen et al. 1994*)
Potassium	**Dog**	*Blood*	*Stability*	●P(Hep): unchanged if centrifugation delayed up to 5 h at 25°C, increased ~10% at 4°C(*Ito et al. 1998*)
Potassium	**Dog**	*Blood*	*Stability*	●S: increased if centrifugation delayed 2h or more at 4 and 25°C; higher than in P(Hep)(*Ito et al. 1998*)
Potassium	**Dog**	*Blood*	*Stability*	●S: increased ~10 & 20% in 4d at 4°C & room temp; increased ~20% when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Potassium	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Potassium	**Dog**	*Blood*	*Stability*	●S: higher than P(Hep); increased if centrifugation delayed 1d in P(Hep) and 2d in S; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Potassium	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Potassium	**Dog**	*Blood*	*Stability*	●S: increased in Akita dogs when separation delayed 12 to 24h(*Rich et al. 1986*)
Potassium	**Dog**	*Blood*	*Stability*	●P(Hep): progressive increase if plasma not separated from cells in Akitas(*Degen 1987*)
Potassium	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
Potassium	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Potassium	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Potassium	**Dog**	*Prostatic fluid*	*Stability*	●PrFl: not different after 7d at -18°C(*Umbach et al. 2019*)
Potassium	**Dog**	*Saliva*	*Exercise*	●Saliva: decreased (not significantly) in running Huskies in mid-distance races(*Templeman et al. 2020*)
Potassium	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after xylazine(*Talukder et al. 2009*)
Potassium	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after xylazine or medetomidine(*Talukder and Hikasa 2009*)
Potassium	**Dog**	*Urine*	*Drugs*	●U: not different after furosemide or torsemide treatment(*Potter et al. 2019*)
Potassium	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after medetomidine(*Talukder et al. 2009*)
Potassium	**Dog**	*Urine*	*Drugs*	●dU: unchanged after furosemide & azosemide(1 & 5 mg/kg); increased after azosemide 10mg/kg(*Hori et al. 2008*)
Potassium	**Dog**	*Urine*	*Drugs*	●U: Pr/Cr ratio ~not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Potassium	**Dog**	*Urine*	*Exercise*	●dU: unchanged by training in Greyhounds(*McKeever et al. 1985*)
Potassium	**Dog**	*Urine*	*Food*	●U: decreased by food restriction(*Takamatsu et al. 2015*)
Potassium	**Dog**	*Urine*	*Food*	●dU: decreased to almost zeo during fasting; back to base after refeeding(*Lemieux and Plante 1968*)
Progesterone	**Dog**	*Blood*	*Anticoagulant*	●S, P(Hep), P(EDTA): results not different(*Tahir et al. 2013*)
Progesterone	**Dog**	*Blood*	*Colour*	●P(Hep): decreased by hemolysis, not different with lipemia(*Ostergard Jensen et al. 2022*)
Progesterone	**Dog**	*Blood*	*Colour*	●P(EDTA): unchanged by hemolysis(*Reimers et al. 1991*)
Progesterone	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Progesterone	**Dog**	*Blood*	*Stability*	●P(Hep): moderate decrease in separated or unseparated specimens up to 2wks at room temp; ~not decreased by repeated freeze-thaw cycles(*Tahir et al. 2013*)
Progesterone	**Dog**	*Blood*	*Stability*	●B: ~20% decrease in 8 hours at 4°C; then ~stable up to 36th h; stable for 5 h at room temperature(*Volkmann 2006*)
Progesterone	**Dog**	*Blood*	*Stability*	●P(Hep) decreased after 1 or 2 d at room temp. and 3 months at -80°C(*Ostergard Jensen et al. 2022*)
Progesterone	**Dog**	*Blood*	*Stability*	●P(Hep): stable for 5 h at 4 & 22°C(*Volkmann 2006*)
Prolactin	**Dog**	*Blood*	*Drugs*	●S: decreased by cabergoline treatment(*Mogheiseh et al. 2017*)
Prolactin	**Dog**	*Blood*	*Drugs*	●S: higher after surgery in exposed than in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
Prolactin	**Dog**	*Blood*	*Sampling*	●S: mildly higher in catrated dogs showing signs of fear in specimen collection room(*Gutierrez et al. 2019*)
Prot electrophoresis	**Dog**	*Blood*	*Anticoagulant*	●S: same results in P(Hep), P(Cit), P(Fl) by capillary EP(*Martinez-Subiela and Ceron 2005*)

Prot electrophoresis	**Dog**	*Blood*	*Anticoagulant*	●S (Act+Sep): same as P(Hep), P(EDTA), P(Cit), P(Fl)(*Martinez-Subiela et al. 2002*)
Prot electrophoresis	**Dog**	*Blood*	*Colour*	●S: free hemoglobin (hemolysis) migrates in β1 or β2 (capillary EP)(*Martinez-Subiela and Ceron 2005*)
Prot electrophoresis	**Dog**	*Blood*	*Colour*	●S: increased peak in α2 in lipemic specimens(*Martinez-Subiela and Ceron 2005*)
Prot electrophoresis	**Dog**	*Blood*	*Colour*	●S (Act+Sep): moderate increase of α2glob by triglycerides(*Martinez-Subiela et al. 2002*)
Prot electrophoresis	**Dog**	*Blood*	*Drugs*	●P(Hep): alb and α1-glob mildly and transiently increased after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Prot electrophoresis	**Dog**	*Blood*	*Food*	●S: α-globulins unchanged, β-gl. Increased and γ-gl. strongly increased in dogs living in low alimentary & sanitary conditions(*Rautenbach 1988*)
Prot electrophoresis	**Dog**	*Blood*	*Other technical*	●P(EDTA) & P(Hep) treated by ethanol have lowered β2 and increase α2 globulins(*Rossi et al. 2008*)
Prot electrophoresis	**Dog**	*Blood*	*Stability*	●S: ~stable at room temp, 4°C for up to 2d & after 2d post transport(*Fontaine et al. 1986*)
Prot electrophoresis	**Dog**	*Blood*	*Stability*	●S (Act+Sep): marked increase of β2glob by Hb from 3g/L(*Martinez-Subiela et al. 2002*)
Prot electrophoresis	**Dog**	*Blood*	*Time variability*	●P(Hep): α-globulins lower in summer; α-gl. higher in winter(*Strasser et al. 2001*)
Prot electrophoresis	**Dog**	*Urine*	*Stability*	●U: not different after 5d atb 4°C and 6mth at-80°C; altered at -20°C(*Theron et al. 2017*)
Protease inhibitor	**Dog**	*Feces*	*Drugs*	●F: not changed by NSAID treatment(*Murphy et al. 2003*)
Protein C	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Protein C	**Dog**	*Blood*	*Other technical*	●P(Cit): independent of diameter of catheter(*Bauer et al. 2011*)
Protein C	**Dog**	*Blood*	*Sampling*	●P(Cit): not different in arterial & venous specimen(*Palsgaard-Van Lue et al. 2007*)
Protein S	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Protein S	**Dog**	*Blood*	*Other technical*	●P(Cit): independent of diameter of catheter(*Bauer et al. 2011*)
Proteins (total)	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep), P(EDTA), higher than P(Cit), P(Fl)(*Ceron et al. 2004*)
Proteins (total)	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): not different(*Granat et al. 2017*)
Proteins (total)	**Dog**	*Blood*	*Anticoagulant*	●S: higher than P(Hep)(*Thoresen et al. 1992*)
Proteins (total)	**Dog**	*Blood*	*Anticoagulant*	●P(Hep) & P(EDTA): not different by refractometry(*Tamborini et al. 2014*)
Proteins (total)	**Dog**	*Blood*	*Colour*	●S: variably increased by hemolysis according to instrument/method(*O'Neill and Feldman 1989*)
Proteins (total)	**Dog**	*Blood*	*Colour*	●P(EDTA): refractometric reading increased by hemolysis(*O'Neill and Feldman 1989*)
Proteins (total)	**Dog**	*Blood*	*Colour*	●S: <5-10% change by TG up to 10g/L, bilirubin up to 600mg/L, Hb up to 4g/L(*Jacobs et al. 1992*)
Proteins (total)	**Dog**	*Blood*	*Colour*	●S: decresed by hyperbilirubinemia in bichromatic assay(*Gupta and Stockham 2014*)
Proteins (total)	**Dog**	*Blood*	*Colour*	●S: no interference of hyperbilirubinemia up to 415 mg/L(*Gupta and Stockham 2014*)
Proteins (total)	**Dog**	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); much higher after LipoClear; not different after high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Proteins (total)	**Dog**	*Blood*	*Colour*	●S: biuret measurement decreased by hyperbilirubinemia(*Garner et al. 2014*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(?): increased by 8wk high dose trimethoprim+sulfadiazine(*Lording and Bellamy 1978*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): refractometric measurements higher with 6% hydroxyethyl starch and 4% succinylated gelatin(*Yam et al. 2018*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: increased after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different up to 12h after xylazine; decreased at 1 & 2 h after acepromazine(*Sutil et al. 2017*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: unchanged up to 2wk after 5h anesthesia with isoflurane or sevoflurane(*Yuan et al. 2012*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): ~unchanged after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: mildly decreased from 26wk in epileptic dogs treated by phenobarbital(*Chauvet et al. 1995*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(EDTA): decreased after IV glucose administration(*Gonzales et al. 2011*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: not changed after 2-13wk phenobarbital(*Foster et al. 2000*)

Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: unchanged by perfusion of crystaloids or 5% glucose during surgery(*Gaynor et al. 1996*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: time & dose-dependant decrease in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: increased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●B(EDTA): mildly decreased after acepromazine before surgery(*Hauptman et al. 2000*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 2wk furosemide or torsemide(*Hori et al. 2007*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): mildly increased after furosemide & azosemide(*Hori et al. 2008*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased from 2wk etodolac 13.7 mg/kg/d(*Panciera and Johnston 2002*)
Proteins (total)	**Dog**	*Blood*	*Drugs*	●S: refractometry unchanged up to 6d by 7.5 ml/kg Hb-glutamer; biuret increased ~40% from 1h, back to base after 2-3d(*Kerl and Langdon 2007*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: mildly decreased after prolonged endurance exercise in sled dogs(*Panciera et al. 2003*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: mildly decreased after endurance sled race(*Kenyon et al. 2011*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: mildly decreased after repeated strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●P(EDTA): moderate increase immediately and 30min after race in Greyhounds(*Snow et al. 1988*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●P(Hep): unchanged by training in Greyhounds(*McKeever et al. 1985*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: decreased by 5d endurance sled race(*McKenzie et al. 2007*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●P(Hep): unchanged for 24h after 1 h race at 9 km/h in untrained Beagles(*Chanoit et al. 2002*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: not changed during & after long distance sled race(*Hinchcliff et al. 1993*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: 10% lower 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Proteins (total)	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: not different after food restriction(*Takamatsu et al. 2015*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
Proteins (total)	**Dog**	*Blood*	*Food*	●P(?): not different after 6 and 16h fasting(*Matsuzawa and Sakazume 1994*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Proteins (total)	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Proteins (total)	**Dog**	*Blood*	*Food*	●P(Hep): ~not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: mildly lower in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: decreased by low protein- low phosphate diet(*Polzin et al. 1991*)
Proteins (total)	**Dog**	*Blood*	*Food*	●S: ~15% higher in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Proteins (total)	**Dog**	*Blood*	*Other biological*	●S: lower in normal weight than mildly to moderately overweight dogs(*Vieira et al. 2022*)
Proteins (total)	**Dog**	*Blood*	*Other biological*	●P(Hep): 5 & 10% increase after 5 & 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
Proteins (total)	**Dog**	*Blood*	*Other biological*	●S: not different according to body score(*Kolodziejski et al. 2021*)
Proteins (total)	**Dog**	*Blood*	*Other biological*	●B(EDTA): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)

Proteins (total)	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Proteins (total)	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Proteins (total)	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Proteins (total)	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Proteins (total)	**Dog**	*Blood*	*Sampling*	●P(Hep): not different in jugular and bone marrow specimens(*Ackert et al. 2019*)
Proteins (total)	**Dog**	*Blood*	*Stability*	●P(EDTA): increased when centrifugation delayed at room temp, 4°C & after 2d post transpor
Proteins (total)	**Dog**	*Blood*	*Stability*	●S: ~ stable at room temp, 4°C & after 2d post transport (*Fontaine et al. 1986*)
Proteins (total)	**Dog**	*Blood*	*Stability*	●S(Act) & P(Hep): ~ stable at 4°C for 2d; increased in P(Hep) and decreased in S after 1wk at-20°C(*Arfuso et al. 2018*)
Proteins (total)	**Dog**	*Blood*	*Stability*	●P(EDTA): 15 g/L increase when centrifuged after 3d in mailing conditions(*Grenn et al. 1976*)
Proteins (total)	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Proteins (total)	**Dog**	*Blood*	*Stability*	●S: higher than P(Hep); increased if centrifugation delayed 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Proteins (total)	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Proteins (total)	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
Proteins (total)	**Dog**	*Blood*	*Time variability*	●P(Hep): higher in summer(*Strasser et al. 2001*)
Proteins (total)	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in August-October(*Sothern et al. 1993*)
Proteins (total)	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; not different at arrival & after 2wks re-housing(*Ochi et al. 2016*)
Proteins (total)	**Dog**	*Blood*	*Transport*	●S: decreased after a 1d flight and road transport(*Liang et al. 2018*)
Proteins (total)	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)
Proteins (total)	**Dog**	*CSF*	*Colour*	●CSF: no or minor effects of blood contamination(*Wilson and Stevens 1977*)
Proteins (total)	**Dog**	*CSF*	*Colour*	●CSF: ~not different when iatrogenic blood contamination(*MacNeill et al. 2018*)
Proteins (total)	**Dog**	*CSF*	*Colour*	●CSF: not changed by mild iatrogenic blood contamination (<13000RBC/µL)(*Hurtt and Smith 1997*)
Proteins (total)	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Proteins (total)	**Dog**	*CSF*	*Sampling*	●CSF: dipstick evaluation not different in specimens collected in plain or EDTA tube(*Koch et al. 2019*)
Proteins (total)	**Dog**	*CSF*	*Sampling*	●CSF: ~twice higher in lumbar than atlanto-occipital specimens(*Bailey and Higgins 1985*)
Proteins (total)	**Dog**	*CSF*	*Sampling*	●CSF: almost twice lower from occipital than lumbar specimen(*Vaughn et al. 1988*)
Proteins (total)	**Dog**	*CSF*	*Stability*	●CSF: stable up to 48h at 4°C(*Fry et al. 2006*)
Proteins (total)	**Dog**	*Lacrimal fluid*	*Sampling*	●LF: lower concentration in Schirmer strip than in ophthalmic sponge specimens; higher variability in sponge specimens(*Sebbag et al. 2018*)
Proteins (total)	**Dog**	*Saliva*	*Food*	●Saliva: numerous changes of proteome after 3mth food reduction in obese dogs(*Lucena et al. 2020*)
Proteins (total)	**Dog**	*Saliva*	*Sampling*	● Saliva: not different if collected with cotton rolls flavoured or not flavoured by citric acid(*Damian et al. 2018*)
Proteins (total)	**Dog**	*Urine*	*Colour*	●U: UPC increased in pink to red urines and in dark yellow urines; protein dipstick reading increased in pink to red urines (*Vientos-Plotts et al. 2018*)
Proteins (total)	**Dog**	*Urine*	*Colour*	●U: UPC unchanged if less than intense pink(*Vaden et al. 2004*)
Proteins (total)	**Dog**	*Urine*	*Colour*	●U: UPC increased by blood contamination(*Bagley et al. 1991*)
Proteins (total)	**Dog**	*Urine*	*Colour*	●U: UPC dose-related increase by blood contamination from 0.125%(*Jillings et al. 2019*)
Proteins (total)	**Dog**	*Urine*	*Colour*	●U: dipstick results higher in dark pink or red urines; UPR overevaluated in yellow and pink to red urines(*Vientos-Plotts et al. 2018*)
Proteins (total)	**Dog**	*Urine*	*Drugs*	●U: UPC increased by prednisone 2.2 mg/kg, bid for 7wk(*Waters et al. 1997*)
Proteins (total)	**Dog**	*Urine*	*Drugs*	●U: UPC ~x2 after hydrocortisone 8.5 mg/kg/12h for 1mth(*Schellenberg et al. 2008*)
Proteins (total)	**Dog**	*Urine*	*Drugs*	●U: UPC unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
Proteins (total)	**Dog**	*Urine*	*Drugs*	●U: UPC increased after 16wk hydrocortisone; back to base 4wk later(*Smets et al. 2012*)
Proteins (total)	**Dog**	*Urine*	*Drugs*	●U: increased after 5d oral treatment with 2 & 4mg/kg prednisone(*Tinklenberg et al. 2020*)

Proteins (total)	**Dog**	*Urine*	*Exercise*	●U: increased after heavy exercise(*Epstein and Zambraski 1979*)
Proteins (total)	**Dog**	*Urine*	*Exercise*	●U: concentration and UPC increased in females not males 30 min after searching exercise of trained military dogs(*Spinella et al. 2023*)
Proteins (total)	**Dog**	*Urine*	*Food*	●U: UPC unchanged by feeding, time of the day(*Jergens et al. 1987*)
Proteins (total)	**Dog**	*Urine*	*Food*	●U: UPC not different in sled dogs fed organohalogen contaminated whale blubber and pork fat(*Sonne et al. 2008*)
Proteins (total)	**Dog**	*Urine*	*Other biological*	●U: UPC decreased by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
Proteins (total)	**Dog**	*Urine*	*Other biological*	●U: UPC decreased after castration(*Bertieri et al. 2015*)
Proteins (total)	**Dog**	*Urine*	*Sampling*	●U: no effect of sex, catheter or cystocentesis; higher in males in voluntarily voided urine(*Barsanti and Finco 1979*)
Proteins (total)	**Dog**	*Urine*	*Sampling*	●U: UPC ~same in cystocentesis and free-catch urine(*Beatrice et al. 2010*)
Proteins (total)	**Dog**	*Urine*	*Sampling*	●U: UPC similar (±20%) in pooled and separate specimens(*LeVine et al. 2010*)
Proteins (total)	**Dog**	*Urine*	*Sampling*	●U: UPC not different in single, 3d-pooled and 3d-averaged specimen(*Shropshire et al. 2018*)
Proteins (total)	**Dog**	*Urine*	*Sampling*	●U: false positives with dipstick if semen contamination(*Prober et al. 2010*)
Proteins (total)	**Dog**	*Urine*	*Sampling*	●U: UPC increased by sperm contamination in males(*Bertieri et al. 2015*)
Proteins (total)	**Dog**	*Urine*	*Sampling*	●U: UPC ~not different by freecatch and cystocentesis(*Marynissen et al. 2017*)
Proteins (total)	**Dog**	*Urine*	*Stability*	●U: U-Prot & UPC not different when stored 4h at 24°C, 12h at 4°C or 3d at -20°C in glass or polypropylene containers(*Moyle et al. 2018*)
Proteins (total)	**Dog**	*Urine*	*Stability*	●U: UPC stable up to 4h at room temp; increased after 12h at 4°C & room temp; stable up to 3mth at-20°C(*Rossi et al. 2012*)
Proteins (total)	**Dog**	*Urine*	*Stability*	●U: UPC decreased after 5d at 4°C, 30d at -20°C and 90d at -80°C(*Theron et al. 2017*)
Proteins (total)	**Dog**	*Urine*	*Stress*	●U: UPC not different in home and hospital specimens(*Citron et al. 2020*)
Proteins (total)	**Dog**	*Urine*	*Stress*	●U: UPC usually higher in hospital than home specimens(*Duffy et al. 2015*)
Proteins (total)	**Dog**	*Urine*	*Time variability*	●U: UPC idem in night and day urine; no effect of sex; higher in caged dogs(*McCaw et al. 1985*)
Prothrombin time	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Cit): not different(*Granat et al. 2017*)
Prothrombin time	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): ~20% shorter than P(EDTA) (*Ceron et al. 2008*)
Prothrombin time	**Dog**	*Blood*	*Colour*	●P(Cit): unchanged by hemolysis(*O'Neill and Feldman 1989*)
Prothrombin time	**Dog**	*Blood*	*Colour*	●P(Cit): non clinically significant effects of TG up to 20g/L, Hb up to 12,6 g/L, bilirubin up to 0.6 g/L(*Moreno and Ginel 1999*)
Prothrombin time	**Dog**	*Blood*	*Colour*	●P(Cit): moderate increase by moderate hemolysis (<1.3 mmolHb/L); no effect of lipemia(*Bauer et al. 2009*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): slightly increased by cephalexin, amoxicillin & enrofloxacin for 1wk(*Webb et al. 2006*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): not different for 8d following 7d treatment with 2.0 mg/kg prednisone(*Hafner et al. 2022*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d aspirin (2x10 mg/kg), carprofen (4.4 mg/kg), deracoxib(2 mg/kg) or meloxicam (0.1 mg/kg)(*Blois et al. 2010*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): increased during and after IV glucose administration(*Gonzales et al. 2011*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): not different after 2wk prednisone ± acetylsalicylic acid(*O'Kell et al. 2012*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): ~not different after post hemorrhage volume replacement with lactated Ringer or hydroxyethyl starch(*Diniz et al. 2018*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●B(?): not different during 2d enoxaparin treatment in Beagles(*Pouzot-Nevoret et al. 2016*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): unchanged by carprofen before isoflurane anesthesia +surgery(*Bergmann et al. 2005*)
Prothrombin time	**Dog**	*Blood*	*Drugs*	●P(Cit): unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
Prothrombin time	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Prothrombin time	**Dog**	*Blood*	*Exercise*	●P(Cit): not different in arterial & venous specimen(*Palsgaard-Van Lue et al. 2007*)
Prothrombin time	**Dog**	*Blood*	*Exercise*	●P(Cit): unchanged by training of sled dogs(*Krogh et al. 2014*)

Prothrombin time	**Dog**	*Blood*	*Food*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)
Prothrombin time	**Dog**	*Blood*	*Other technical*	●P(Cit): same results witht 3.2 & 3.8% citrate(*Stokol et al. 2000*)
Prothrombin time	**Dog**	*Blood*	*Other technical*	●B(Cit): not different for up to 3d in specimens from in-dwelling jugular catheter and direct venipuncture(*Kielb Basile et al. 2021*)
Prothrombin time	**Dog**	*Blood*	*Other technical*	●P(Cit): same results with 3.2 & 3.8% citrate(*Morales et al. 2007*)
Prothrombin time	**Dog**	*Blood*	*Other technical*	●P(Cit): increased if blood/citrate volume decreased(*Johnstone 1993*)
Prothrombin time	**Dog**	*Blood*	*Other technical*	●P(Cit): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): increased from 12th h of storage at room temp, 4 & -80°C(*Ceron et al. 2008*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): ~same results by direct venipuncture and by catheter after 24h(*Maeckelbergh and Acierno 2008*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): ~stable in blood stored up to 48h at room temp.(*Maunder et al. 2012*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): stable up to 8h at 8°C; mildly decreased at 24h(*Piccione et al. 2010*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): with or without centrifugation stable up to 2d at 4°C and 6h at room temp(*Smalko et al. 1985*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): no effect of storage at-70°C for 6mth(*Bateman et al. 1999*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): stable 1d at room temp & up to 7mth at -20C; prolonged after 2d at room temp(*Rizzo et al. 2008*)
Prothrombin time	**Dog**	*Blood*	*Stability*	●P(Cit): unchanged for 2d at 24°C and 4d at 4°C(*Furlanello et al. 2006*)
Pyridinoline	**Dog**	*Blood*	*Exercise*	●S: not different after 7km race of Greyhounds(*Tharwat et al. 2014*)
Pyruvate	**Dog**	*Blood*	*Food*	●B($HClO_4$): decreased by prolonged fasting(*Brady et al. 1977*)
Pyruvate	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
RBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
RBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): not diferent(*Granat et al. 2017*)
RBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): ~ not different from B(Cit) & B(CTAD)(*Norman et al. 2001*)
RBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(Cit): not different(*Stokol and Erb 2007*)
RBC	**Dog**	*Blood*	*Colour*	●B(EDTA): unchanged by hemolysis(*O'Neill and Feldman 1989*)
RBC	**Dog**	*Blood*	*Drugs*	●B(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
RBC	**Dog**	*Blood*	*Drugs*	●B(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
RBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
RBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
RBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from 15 min to 12h after acepromazine, decreased 30 & 60 min after xylazine(*Sutil et al. 2017*)
RBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
RBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from 30 min after induction of anesthesia by propofol with & without tramadol; then stable for 1h(*Costa et al. 2013*)
RBC	**Dog**	*Blood*	*Drugs*	●B(?): progressive decrease (max 1h) after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
RBC	**Dog**	*Blood*	*Drugs*	●B(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
RBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased 3h after 7.5 ml/kg Hb-glutamer; back to base at 8h(*Kerl and Langdon 2007*)
RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): lower in working than pet Border Collies(*Downs et al. 1997*)
RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased immediately and 30min after race in Greyhounds(*Snow et al. 1988*)
RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
RBC	**Dog**	*Blood*	*Exercise*	●B(Hep): decreased by strenuous exercise(*Dzhelebov et al. 2008*)
RBC	**Dog**	*Blood*	*Exercise*	●B(?): resting value decreased 10-15% by 24wk-training in sled dogs(*Querengaesser et al. 1994*)
RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): mild transient increase by treadmill moderate exercise(*Piccione et al. 2012*)
RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): mildly increased immediately after agility test; decreased 15 & 30min later(*Rovira et al. 2007*)

RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): decreased by training & exercise of sled dogs(*Davis et al. 2008*)
RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): lower in dogs trained for long distance aerobic effort(*Arokoski et al. 1993*)
RBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased immediately after agility test; back to base or below after 4h(*Baltzer et al. 2012*)
RBC	**Dog**	*Blood*	*Food*	●B(?): ~not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
RBC	**Dog**	*Blood*	*Food*	●B(EDTA): higher after 20wk feeding a nonprocessed high-fat than a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
RBC	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
RBC	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
RBC	**Dog**	*Blood*	*Food*	●B(EDTA): ~20% lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs(*Rautenbach et al. 1987*)
RBC	**Dog**	*Blood*	*Food*	●B(EDTA): not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
RBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after repeated blood donations(*Ferreira et al. 2014*)
RBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
RBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
RBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
RBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
RBC	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
RBC	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
RBC	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
RBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): mildly lower from vacuum tube in jugular vein than capillary tube in cephalic vein(*Reynolds et al. 2008*)
RBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): ~20% lower in arterial than venous specimen(*Palsgaard-Van Lue et al. 2007*)
RBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
RBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): same in jugular and cephalic vein(*Jensen et al. 1994*)
RBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 0 & 22% differences >TEa(*Guarino et al. 2022*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): same results in samples received by post as in fresh samples(*Hinton and Jones 1978*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): no effect of transport and storage for 24h at 4-10°C(*Hayashi et al. 1995*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): increased at room temp from day 3 & after 2d post transport; stable up to 4d at 4°C(*Fontaine et al. 1986*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): unchanged at room temp for up to 2d(*Medaille et al. 2006*)
RBC	**Dog**	*Blood*	*Stability*	●P(EDTA): decreased after 3d in mailing conditions(*Grenn et al. 1976*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): stable 3d at 4 & 25°C(*Pastor et al. 1997*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 3d at room temp(*Prins et al. 2009*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): increased after 12h at room temp & 24h at 4°C(*Athanasiou et al. 2016*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at 4°C & room temp(*Furlanello et al. 2006*)
RBC	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at room temp(*Bourges-Abella et al. 2013*)
RBC	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
RBC	**Dog**	*Blood*	*Time variability*	●B(EDTA): slightly higher in evening than morning(*Widenhorn et al. 2011*)
RBC	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher in summer(*Strasser et al. 2001*)
RBC	**Dog**	*Blood*	*Time variability*	●B(?): no circannual variations(*Sothern et al. 1993*)
RBC	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
RBC	**Dog**	*Blood*	*Transport*	●B(EDTA): increased after a 1d flight and road transport; back to base on the following days(*Liang et al. 2018*)
RBC	**Dog**	*Blood*	*Transport*	●B(?): not different after food restriction(*Takamatsu et al. 2015*)

RBC	**Dog**	*CSF*	*Colour*	●CSF: intensely increased by iatrogenic blood contamination(*MacNeill et al. 2018*)
RBC	**Dog**	*Synovia*	*Sampling*	●Synovia: not different in 4 repeated specimens at 3wk interval; not different according to joint(*Berg et al. 2009*)
RBP	**Dog**	*Urine*	*Stability*	●U: intensely decreased after 4yr storage at -72°C(*Defauw et al. 2017*)
RBP	**Dog**	*Urine*	*Stability*	●U: same in voided and cystocentesis urine; mildly decreased after 4mth at -20°C; stable up to 12mth at-80°C(*Smets et al. 2010*)
RDW	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
RDW	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~not different after race(*Horvath et al. 2014*)
RDW	**Dog**	*Blood*	*Other biological*	●B(EDTA): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
RDW	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
RDW	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
RDW	**Dog**	*Blood*	*Other biological*	●B(EDTA): increased after repeated blood donations(*Ferreira et al. 2014*)
RDW	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different from vacuum tube in jugular vein and capillary tube in cephalic vein(*Reynolds et al. 2008*)
RDW	**Dog**	*Blood*	*Other technical*	●B(ED TA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
RDW	**Dog**	*Blood*	*Stability*	●B(EDTA): mildly decreased from 48h at 4°C and 36h at room temp(*Furlanello et al. 2006*)
RDW	**Dog**	*Blood*	*Time variability*	●B(?): circannual acrophase in August-September(*Sothern et al. 1993*)
RDW	**Dog**	*Blood*	*Transport*	●B(EDTA): increased up to 3d after road and air transport(*Liang et al. 2018*)
Renin	**Dog**	*Blood*	*Drugs*	●B(EDTA): increased by chronic treatment with doxorubicin(*Alves de Souza and Camacho 2006*)
Renin	**Dog**	*Blood*	*Other biological*	●B(EDTA+aprotinin): progressive decrease with acclimatization to repeated blood sampling on 6wk(*Slaughter et al. 2002*)
Reticulocytes	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): not diferent(*Granat et al. 2017*)
Reticulocytes	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
Reticulocytes	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Reticulocytes	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~x5 after race; back to base 2h later(*Horvath et al. 2014*)
Reticulocytes	**Dog**	*Blood*	*Food*	●B(?): decreased by food restriction(*Takamatsu et al. 2015*)
Reticulocytes	**Dog**	*Blood*	*Other biological*	●B(EDTA): intensely increased after repeated blood donations(*Ferreira et al. 2014*)
Reticulocytes	**Dog**	*Blood*	*Other biological*	●B(EDTA): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
Reticulocytes	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Reticulocytes	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
Reticulocytes	**Dog**	*Blood*	*Sampling*	●B(EDTA): not different in specimens from jugular, cephalic and lateral saphenous veins(*An et al. 2019*)
Reticulocytes	**Dog**	*Blood*	*Stability*	●B(EDTA): moderately increased after 2d at room temp(*Bourges-Abella et al. 2013*)
Reticulocytes	**Dog**	*Blood*	*Time variability*	●B(EDTA): no influence of season(*Strasser et al. 2001*)
SAA	**Dog**	*Blood*	*Exercise*	●S: transient increase (x1.5) after hunting; ~back to base after 1h(*Casella et al. 2013*)
SAA	**Dog**	*Blood*	*Exercise*	●S: increased after 7km race of Greyhounds(*Tharwat et al. 2014*)
SAA	**Dog**	*Blood*	*Other biological*	●S: not different in healthy lean and overweight dogs(*Hillström et al. 2015*)
SAA	**Dog**	*Blood*	*Transport*	●S: ~x2 after a 3h-road transport; almost back to base 6h later(*Fazio et al. 2015*)
SDMA	**Dog**	*Blood*	*Anticoagulant*	●S, P(Hep) & P(EDTA): not different (*Nabity et al. 2015*)
SDMA	**Dog**	*Blood*	*Colour*	●S, P(Hep) & P(EDTA): no interference of hemolysis, lipemia and bilirubin(*Nabity et al. 2015*)
SDMA	**Dog**	*Blood*	*Food*	●S(Act): post-prandial increase > relative change value in 5% of dogs(*Yi et al. 2023*)
SDMA	**Dog**	*Blood*	*Food*	●S: decreased by food supplemented with carnitine and fish oil(*Hall et al. 2015*)
SDMA	**Dog**	*Blood*	*Stability*	●S, P(Hep) & P(EDTA): <10% change after storage up to 1 & 2wk at 20 & 4°C or by 3 freeze-thaw cycles(*Nabity et al. 2015*)
Selenium	**Dog**	*Blood*	*Food*	●S: lower when fed a low selenium diet(*van Zelst et al. 2016*)

Selenium	**Dog**	*Hair*	*Stability*	●Hair: higher in dogs fed raw than mixed or dry diets(*Rosendahl et al. 2022*)
Selenium	**Dog**	*Urine*	*Stability*	●U: higher Se/Creat with canned food than kibble(*van Zelst et al. 2016*)
Selenium	**Dog**	*Urine*	*Stability*	●U: lower Se/creat when fed a low selenium diet(*van Zelst et al. 2016*)
Serotonin	**Dog**	*Blood*	*Food*	●P(Hep): higher in dogs supplemented with neutraceuticals(*Sechi et al. 2017*)
Serotonin	**Dog**	*Urine*	*Other biological*	●U: not different according to anxious or aggressive behaviour(*Schmidt et al. 2023*)
SOD	**Dog**	*Blood*	*Exercise*	●RBC(Hep): unchanged after strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
SOD	**Dog**	*Blood*	*Exercise*	●P(Hep): ~25% decrease after 11d race in sled dogs(*DiSilvestro et al. 2005*)
Sodium	**Dog**	*Blood*	*Anticoagulant*	●B(Hep): increased if heparin solution not fully expelled from syringe before sampling(*Hopper et al. 2005*)
Sodium	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results(*Thoresen et al. 1992*)
Sodium	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep), P(EDTA), P(Fl); lower in P(Cit)(*Ceron et al. 2004*)
Sodium	**Dog**	*Blood*	*Anticoagulant*	●S: mildly higher than P(Hep)(*Degen 1986*)
Sodium	**Dog**	*Blood*	*Colour*	●S: moderately increased by hemolysis & hyperproteinemia(*Bernardini et al. 2009*)
Sodium	**Dog**	*Blood*	*Colour*	●B(Hep): not different during post-prandial hyperlipemia(*Bonatto et al. 2023*)
Sodium	**Dog**	*Blood*	*Colour*	●S: <5% bias in hyperlipidemic specimens (dry chemistry); ~not different after LipoClear or high speed centrifugation(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Sodium	**Dog**	*Blood*	*Colour*	●S: <5% change by TG up to 10g/L, bilirubin up to 600mg/L, Hb up to 4g/L (*Jacobs et al. 1992*)
Sodium	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Sodium	**Dog**	*Blood*	*Drugs*	●S. not different after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Sodium	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Sodium	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: increased when water deprived(*Genetzky et al. 1987*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: not different after treatment by torsemide or furosemide(*Potter et al. 2019*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: still increased 90 min after hypertonic saline solution(*Kim et al. 2020*)
Sodium	**Dog**	*Blood*	*Drugs*	●P(Hep): not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Sodium	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 2wk furosemide or torsemide(*Hori et al. 2007*)
Sodium	**Dog**	*Blood*	*Drugs*	●P(Hep): isoflurane anesthetized dogs; decreased 5 min after injection of 15 mL/kg hydroxyethylstarch in saline or a polyionic solution; back to base after 1h(*Adamik et al. 2018*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: not different after 1mk/kg/d prednisolone; decreased by desmopressine administration(*Galati et al. 2021*)
Sodium	**Dog**	*Blood*	*Drugs*	●B(Hep): unchanged after furosemide & azosemide(*Hori et al. 2008*)
Sodium	**Dog**	*Blood*	*Drugs*	●B: not changed after charcoal/propylene glycol/glycerol(*Burkitt et al. 2005*)
Sodium	**Dog**	*Blood*	*Drugs*	●B: no effect of dose & time in anesthetized dogs perfused with lactated Ringer(*Muir et al. 2011*)
Sodium	**Dog**	*Blood*	*Drugs*	●S: not different after 7wk amiodarone(*Bicer et al. 2002*)
Sodium	**Dog**	*Blood*	*Drugs*	●P(Hep): ~not different after 1 & 2h of mannitol or hetastarch infusion(*Robinson et al. 2011*)
Sodium	**Dog**	*Blood*	*Exercise*	●S: not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Sodium	**Dog**	*Blood*	*Exercise*	●S: ~not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Sodium	**Dog**	*Blood*	*Exercise*	●P(Hep): unchanged by training in Greyhounds(*McKeever et al. 1985*)
Sodium	**Dog**	*Blood*	*Exercise*	●S: unchanged by 5d endurance sled race(*McKenzie et al. 2007*)

Sodium	**Dog**	*Blood*	*Exercise*	●S: ~unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Sodium	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Sodium	**Dog**	*Blood*	*Exercise*	●S: not changed during & after long distance sled race(*Hinchcliff et al. 1993*)
Sodium	**Dog**	*Blood*	*Food*	●S: not different in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Sodium	**Dog**	*Blood*	*Food*	●S: slighthly lower in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)
Sodium	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Sodium	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Sodium	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Sodium	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Sodium	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Sodium	**Dog**	*Blood*	*Other technical*	●B(Hep): not different with cold and warm cartridges of an electrochemical POCT(*Looney et al. 1998*)
Sodium	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
Sodium	**Dog**	*Blood*	*Other technical*	●B(Hep & Blood gas syringe): not different(*Bachmann et al. 2018*)
Sodium	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Sodium	**Dog**	*Blood*	*Other technical*	●S: higher (mean 4 mmol/L) by enzymatic method than ISE or flame photometry(*Bernardini et al. 2009*)
Sodium	**Dog**	*Blood*	*Sampling*	●P(Hep): higher in jugular than bone marrow specimens(*Ackert et al. 2019*)
Sodium	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before(*Guarino et al. 2022*)
Sodium	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Sodium	**Dog**	*Blood*	*Stability*	●S & P(Hep): increased if centrifugation delayed 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Sodium	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Sodium	**Dog**	*Blood*	*Stability*	●S: not different in Akita dogs when separation delayed 12 to 24h(*Rich et al. 1986*)
Sodium	**Dog**	*Blood*	*Stability*	●P(Hep): progressive decrease if plasma not separated from cells in Akitas(*Degen 1987*)
Sodium	**Dog**	*Blood*	*Stability*	●S: stable 4d at 4°C & room temp & when centrifuged after 2d post transport(*Fontaine et al. 1986*)
Sodium	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)
Sodium	**Dog**	*Blood*	*Time variability*	●P(Hep): higher in summer(*Strasser et al. 2001*)
Sodium	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Sodium	**Dog**	*CSF*	*Drugs*	●CSF: not different 15min and 3h after induction of anesthesia by propofol or isoflurane(*Seisdedos et al. 2019*)
Sodium	**Dog**	*Prostatic fluid*	*Stability*	●PrFl:not different after 7d at -18°C(*Umbach et al. 2019*)
Sodium	**Dog**	*Saliva*	*Exercise*	●Saliva: increased in running Huskies in mid-distance races(*Templeman et al. 2020*)
Sodium	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after xylazine(*Talukder et al. 2009*)
Sodium	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after xylazine or medetomidine(*Talukder and Hikasa 2009*)
Sodium	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after medetomidine(*Talukder et al. 2009*)
Sodium	**Dog**	*Urine*	*Drugs*	●dU: increased after furosemide & azosemide(*Hori et al. 2008*)
Sodium	**Dog**	*Urine*	*Drugs*	●U: transiently decreased after xylazine(*Talukder et al. 2009*)
Sodium	**Dog**	*Urine*	*Exercise*	●dU: ~85% increase by training in Greyhounds(*McKeever et al. 1985*)
Sodium	**Dog**	*Urine*	*Food*	●dU: decreased to almost zeo during fasting; back to base after refeeding(*Lemieux and Plante 1968*)
Sodium	**Dog**	*Urine*	*Food*	●U: decreased by food restriction(*Takamatsu et al. 2015*)
Specific gravity	**Dog**	*Urine*	*Colour*	●U: increased in pink to red urines(*Vientos-Plotts et al. 2018*)
Specific gravity	**Dog**	*Urine*	*Colour*	●U: refractometry results higher in dark pink or red urines(*Vientos-Plotts et al. 2018*)

Specific gravity	**Dog**	*Urine*	*Drugs*	●U: refractometry falsely elevated by hetastarch(*Smart et al. 2009*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: decreased by prednisone 2.2 mg/kg for 7wk(*Waters et al. 1997*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: altered after radiographic contrast medium injection(*Feeney et al. 1980*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: unchanged for 2 days after halothane anesthesia +ovariohysterectomy(*Lobetti and Lambrechts 2000*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: transient decrease after furosemide & persistent decrease after torsemide(*Hori et al. 2007*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: transient decrease after furosemide & azosemide(*Hori et al. 2008*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: decreased after 14d 1mg/kg per day prednisone; back to base on day 35(*Masters et al. 2018*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: not different after treatment by torsemide or furosemide(*Potter et al. 2019*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: transient intense decrease by xylazine or medetomidine(*Talukder and Hikasa 2009*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: intense decrease by medetomidine; back to base ~5h(*Talukder et al. 2009*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: increased up to 3h after rehydration with 6% hydroxyethyl starch 130/0.4 or 4% succinylated gelatine(*Yam et al. 2019*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: decreased after 16wk hydrocortisone(*Smets et al. 2012*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: decreased by 1mk/kg/d prednisolone; corrected by desmopressine administration(*Galati et al. 2021*)
Specific gravity	**Dog**	*Urine*	*Drugs*	●U: ~not different up to 2d after halothane anesthesia & elective surgery(*Lobetti and Lambrechts 2000*)
Specific gravity	**Dog**	*Urine*	*Exercise*	●U: not different after a 5km walk in 30-40 min at 25°C(*Paslawska et al. 2020*)
Specific gravity	**Dog**	*Urine*	*Food*	●U: not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Specific gravity	**Dog**	*Urine*	*Other biological*	●U: mildly increased by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
Specific gravity	**Dog**	*Urine*	*Other technical*	●U: moderate not clinically relevant increase by glucosuria(*Behrend et al. 2019*)
Specific gravity	**Dog**	*Urine*	*Sampling*	●U: not different in syringe, diaper or no-absorbable litter; stable up to 5h in syringe, mildly increased in diaper & litter(*Steinberg et al. 2009*)
Specific gravity	**Dog**	*Urine*	*Sampling*	●U: great variability of morning urine measurements in many dogs(*Rudinsky et al. 2019*)
Specific gravity	**Dog**	*Urine*	*Stability*	●U: unchanged at 22 & 3°C for 24d(*Albasan et al. 2003*)
Specific gravity	**Dog**	*Urine*	*Stability*	●U: test strip measurement stable up to 72h in native urine stored at 4°C and in urine stored in Vacutainer urine tubes at room temp.(*Aulakh et al. 2020*)
Specific gravity	**Dog**	*Urine*	*Stability*	●U: not different in centrifuged and native specimens; not different after up to 6 mts at 4°C and -20°C; not different when proteinuria <1g/L(*Mosch et al. 2020*)
Specific gravity	**Dog**	*Urine*	*Time variability*	●U: independent of sex; higher in the morning; decrease with age(*van Vonderen et al. 1997*)
Spexin	**Dog**	*Blood*	*Other biological*	●S: increased with body score(*Kolodziejski et al. 2021*)
T3	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): not different(*Panciera et al. 2003*)
T3	**Dog**	*Blood*	*Colour*	●P(EDTA): unchanged by hemolysis(*Reimers et al. 1991*)
T3	**Dog**	*Blood*	*Drugs*	●S: transient decrease after isoflurane anesthesia(*Wood et al. 2009*)
T3	**Dog**	*Blood*	*Drugs*	●S: decreased TT3 after 1wk aspirin 25mg/kg/12h; back to base 1wk after withdrawal; no effect of ketoprofen 1mg/kg/d for 7 days(*Daminet et al. 2003*)
T3	**Dog**	*Blood*	*Drugs*	●P(?): ~not different by 12/20d topical and ototopical dexamethasone(*Gottschalk et al. 2011*)
T3	**Dog**	*Blood*	*Drugs*	●S: transient decrease, not different after 7wk amiodarone(*Bicer et al. 2002*)
T3	**Dog**	*Blood*	*Drugs*	●S: rT3 decreased & T3 ~unchanged after 4wk clomipramine(*Gulikers and Panciera 2003*)
T3	**Dog**	*Blood*	*Drugs*	●S: TT3 increased from 3wks daily ingestion of 0.3 mg/kg melatonin; not different in castrated males; fT3 not different(*Taheri et al. 2019*)
T3	**Dog**	*Blood*	*Drugs*	●S: not different after up to 4wk etodolac 13.7 mg/kg/d(*Panciera and Johnston 2002*)
T3	**Dog**	*Blood*	*Exercise*	●S: T3 & fT3 unchanged by training in sled dogs(*Evason et al. 2004*)
T3	**Dog**	*Blood*	*Exercise*	●S: decreased after prolonged endurance exercise in sled dogs(*Panciera et al. 2003*)
T3	**Dog**	*Blood*	*Exercise*	●S: TT3 not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
T3	**Dog**	*Blood*	*Food*	●S: T3/T4 ratio not different when fed a low selenium diet(*van Zelst et al. 2016*)
T3	**Dog**	*Blood*	*Food*	●P(Hep): TT3 & FT lower in sled dogs fed organohalogen contaminated whale blubber than pork fat(*Kirkegaard et al. 2011*)

T3	**Dog**	*Blood*	*Time variability*	●P(Hep): lower in autumn(*Strasser et al. 2001*)
T3	**Dog**	*Blood*	*Transport*	●P(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
T4	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): not different(*Panciera et al. 2003*)
T4	**Dog**	*Blood*	*Anticoagulant*	●S: 44% higher in P(EDTA) which should not be used for chemiluminescent enzyme immunoassay(*Schechter et al. 2020*)
T4	**Dog**	*Blood*	*Colour*	●S: irregularly decreased by hemolysis; unaffected by bilirubin; mildly increased by lipemia(*Lucena et al. 1998*)
T4	**Dog**	*Blood*	*Colour*	●S: FT4 decreased by hemolysis and increased by lipemia(*Parra et al. 2004*)
T4	**Dog**	*Blood*	*Colour*	●S: no effect of lipemia (except >10g/L TG) and hemolysis (<20g/L Hb); stable up 5wk at 2-8 and -20°C(*Horney et al. 1999*)
T4	**Dog**	*Blood*	*Drugs*	●S: ~50% decrease TT4 after aspirin 25mg/kg/12h; back to base 1wk after withdrawal; no effect of ketoprofen 1mg/kg/d for 7 days(*Daminet et al. 2003*)
T4	**Dog**	*Blood*	*Drugs*	●P(?): decrease by 12/20d topical and ototopical dexamethasone; not back to base values after 1wk withdrawal(*Gottschalk et al. 2011*)
T4	**Dog**	*Blood*	*Drugs*	●S: progressive decrease of T4 & FT4 with trimethoprim-sulfamethoxazole (~: 3 after 3wk)(*Frank et al. 2005*)
T4	**Dog**	*Blood*	*Drugs*	●S: transient decrease, not different after 7wk amiodarone(*Bicer et al. 2002*)
T4	**Dog**	*Blood*	*Drugs*	●S: TT4 & FT4 decreased after 27wk phenobarbital; back to base after 1 & 5wk withdrawal(*Gieger et al. 2000*)
T4	**Dog**	*Blood*	*Drugs*	●S: FT4 increased (not significantly) by cabergoline treatment(*Mogheiseh et al. 2017*)
T4	**Dog**	*Blood*	*Drugs*	●S: TT4 & FT4 decreased after 4wk clomipramine(*Gulikers and Panciera 2003*)
T4	**Dog**	*Blood*	*Drugs*	●S: fT4 not different up to 4wkws daily ingestion of 0.3 mg/kg melatonin in intact and castrated males(*Taheri et al. 2019*)
T4	**Dog**	*Blood*	*Drugs*	●S: TT4 & FT4 not different after up to 4wk etodolac 13.7 mg/kg/d(*Panciera and Johnston 2002*)
T4	**Dog**	*Blood*	*Drugs*	●S: TT4 transiently decreased after isoflurane anesthesia ± laparotomy; FT4 increased up to 7 days after(*Wood et al. 2009*)
T4	**Dog**	*Blood*	*Exercise*	●S: TT4 & FT4 not different in trained & untrained whippets(*van Geffen et al. 2006*)
T4	**Dog**	*Blood*	*Exercise*	●S: TT4 decreased ~25% by training of sled dogs; FT4 ~unchanged(*Krogh et al. 2014*)
T4	**Dog**	*Blood*	*Exercise*	●S: TT4 & FT4 not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
T4	**Dog**	*Blood*	*Exercise*	●S: decreased after prolonged endurance exercise in sled dogs(*Panciera et al. 2003*)
T4	**Dog**	*Blood*	*Exercise*	●S: ~50-60% decrease of T4 & FT4 by training in sled dogs(*Evason et al. 2004*)
T4	**Dog**	*Blood*	*Food*	●P(?): no change of TT4 by diet or weight loss in obese dogs; fT4 decreased with weight loss(*Diez et al. 2004*)
T4	**Dog**	*Blood*	*Food*	●P(Hep): TT4 & FT4 not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
T4	**Dog**	*Blood*	*Food*	●S: decreased when fed excess iodine(*Castillo et al. 2001*)
T4	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
T4	**Dog**	*Blood*	*Food*	●P(Hep): TT4 & FT4 lower in sled dogs fed organohalogen contaminated whale blubber than pork fat(*Kirkegaard et al. 2011*)
T4	**Dog**	*Blood*	*Stability*	●S: <~10-15% changes 4d at 4°C & room temp & when centrifuged after 2d post transport(*Fontaine et al. 1986*)
T4	**Dog**	*Blood*	*Stability*	●S: stable up to 8d at room temp, 4°C & -20°C; unchanged by up to 8 freeze-thaw cycles(*Reimers et al. 1982*)
T4	**Dog**	*Blood*	*Stability*	●S & P(EDTA): T4 & FT4 same stability after 5d ar -20, 4 & 25°C; increased in S at 37°C(*Behrend et al. 1998*)
T4	**Dog**	*Blood*	*Time variability*	●P(EDTA): no circadian rhythm(*Kemppainen and Sartin 1984*)
TAOC	**Dog**	*Blood*	*Colour*	●P(EDTA)&S: increased in lipemic specimens(*Bonatto et al. 2021*)
TBARs	**Dog**	*Blood*	*Colour*	●P(EDTA)&S: not different in lipemic specimens(*Bonatto et al. 2021*)
TBARs	**Dog**	*Blood*	*Stability*	●S: not different for 3d at 4; 1d at 25°C; 1mth at -20: 1yr at -80°C(*Rubio et al. 2018*)
Testosterone	**Dog**	*Blood*	*Colour*	●P(EDTA): unchanged by hemolysis(*Reimers et al. 1991*)
Testosterone	**Dog**	*Blood*	*Exercise*	●S: increased after 7km race of Greyhounds(*Tharwat et al. 2014*)
Testosterone	**Dog**	*Blood*	*Time variability*	●P(Hep): no circadian rhythm; not different in spring and autumn(*Thun et al. 1990*)
Testosterone	**Dog**	*Hair*	*Sampling*	●Hair: not different in head, torso, and limbs; higher (not significantly) in white hair(*Calamari et al. 2020*)
Thrombin generation	**Dog**	*Blood*	*Sampling*	●P(Cit): different in specimen from direct jugular venipuncture and winged-needle catheter in saphenous vein(*Cuq et al. 2018*)

Thrombin generation	**Dog**	*Blood*	*Stability*	●P(Cit): not different after 1yr at -80°C(*Cuq et al. 2018*)
Thromboelastogram	**Dog**	*Blood*	*Anticoagulant*	●P(Cit): specimen more coagulable if anticoagulation delayed or vacuum tubes not used(*Koenigshof et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Anticoagulant*	●B(native) & B(Cit) give similar results(*Bauer et al. 2009*)
Thromboelastogram	**Dog**	*Blood*	*Drugs*	●B(Cit) & P(Cit): altered K, α & MA after 1 and 4 mg prednisone/kg for 2 wk(*Rose et al. 2011*)
Thromboelastogram	**Dog**	*Blood*	*Drugs*	●B(Cit): not different for up to 4d after IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
Thromboelastogram	**Dog**	*Blood*	*Drugs*	●B(Cit): not different after hypertonic or isotonic saline solutions(*Kim et al. 2020*)
Thromboelastogram	**Dog**	*Blood*	*Drugs*	●B(?): not different during 2d enoxaparin treatment in Beagles(*Pouzot-Nevoret et al. 2016*)
Thromboelastogram	**Dog**	*Blood*	*Drugs*	●B(Cit): not different up to 4h after acepromazine(*Conner et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Drugs*	●B(Cit): ~not different during IV glucose administration(*Gonzales et al. 2011*)
Thromboelastogram	**Dog**	*Blood*	*Exercise*	●B(Cit): not different after 13min submaximal exercise(*Bauer et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Exercise*	●B(Cit): hypercoagulability after training of sled dogs(*Krogh et al. 2014*)
Thromboelastogram	**Dog**	*Blood*	*Other biological*	●B(Cit): no effect of sex(*Bauer et al. 2009*)
Thromboelastogram	**Dog**	*Blood*	*Other technical*	●B(Cit): not different from vacuum tube or syringe(*Ralph et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Other technical*	●B(Cit): coagulation accelerated in vacuum evacuated tubes compared to open tubes(*Steiner et al. 2021*)
Thromboelastogram	**Dog**	*Blood*	*Other technical*	●B(Cit): not different for up to 3d in specimens from in-dwelling jugular catheter and direct venipuncture(*Kielb Basile et al. 2021*)
Thromboelastogram	**Dog**	*Blood*	*Other technical*	●B(Cit): mildly affected by traumatic venipuncture(*Garcia-Pereira et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Other technical*	●B(EDTA): independent of diameter of catheter(*Bauer et al. 2011*)
Thromboelastogram	**Dog**	*Blood*	*Other technical*	●B(Cit): same results if ¼ or 1/10 dilution in saline; hypocoagulability in hetastarch dilutions(*Falco et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Sampling*	●B(Cit): not different from jugular and lateral saphenous veins; minor differences if collected by direct venipuncture, through a central venous catheter, or a winged needle catheter and evacuated tube(*Walker et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Sampling*	●B(Cit): different from jugular and lateral saphenous veins (sampled after jugular v.)(*Vuille-Dit-Bille et al. 2022*)
Thromboelastogram	**Dog**	*Blood*	*Stability*	●B(Cit): slightly modified after 120min at room temp.(*Wiinberg et al. 2005*)
Thromboelastogram	**Dog**	*Blood*	*Stability*	●B(Cit): stable up to 30 min at room temp(*Ralph et al. 2012*)
Thromboelastogram	**Dog**	*Blood*	*Stability*	●B(Cit): ~not different up to 8h at 4°C(*Lemon et al. 2021*)
TIBC	**Dog**	*Blood*	*Drugs*	●S: almost unchanged after 0.5 mg/kg BW, q12h or 2 mg/kg BW, q12h prednisolone for 7d(*Adamama-Moraitou et al. 2005*)
TIBC	**Dog**	*Blood*	*Other biological*	●S: not different in blood donors and controls(*Zaldivar-Lopez et al. 2014*)
TLI	**Dog**	*Blood*	*Food*	●S: ~not different up to 6h after meal(*James et al. 2009*)
TLI	**Dog**	*Blood*	*Food*	●S: not different within 8h after meal in 12h fasted dogs(*Saver et al. 2021*)
TLI	**Dog**	*Blood*	*Other biological*	●S: not different after fine-needle aspiration; ~x2 after surgical biopsy(*Cordner et al. 2010*)
TLI	**Dog**	*Blood*	*Other biological*	●S: transient increase after endoscopic retrograde pancreatography(*Spillmann et al. 2004*)
TNF	**Dog**	*Blood*	*Exercise*	●S: not different after 7km race of Greyhounds(*Tharwat et al. 2014*)
Transferrin	**Dog**	*Blood*	*Other biological*	●S: ~not different after repeated blood donations(*Ferreira et al. 2014*)
Triglycerides	**Dog**	*Blood*	*Anticoagulant*	●S: same as P(Hep), P(EDTA), P(Fl) & P(Cit)(*Ceron et al. 2004*)
Triglycerides	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD) & P(Hep): not different(*Granat et al. 2017*)
Triglycerides	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results(*Thoresen et al. 1992*)
Triglycerides	**Dog**	*Blood*	*Colour*	●S(Act): intensely increased from 1st hour of post-prandial hyperlipemia; still high 5h after feeding(*Bonatto et al. 2023*)
Triglycerides	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient increase after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Triglycerides	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Triglycerides	**Dog**	*Blood*	*Drugs*	●S: unchanged after 6-8wk ursodesoxycholic acid(*Deitz et al. 2015*)
Triglycerides	**Dog**	*Blood*	*Drugs*	●S: higher in 25 to 40% of dogs after treatment with phenobarbital or phenobarbital + bromide(*Kluger et al. 2008*)

Triglycerides	**Dog**	*Blood*	*Drugs*	●S: incrteased after 5d oral treatment with 0.5 to 4mg/kg prednisone(*Tinklenberg et al. 2020*)
Triglycerides	**Dog**	*Blood*	*Exercise*	●S: decreased during & after long distance sled race(*Hinchcliff et al. 1993*)
Triglycerides	**Dog**	*Blood*	*Exercise*	●P(Hep): ~not changed by mild intensity endurance exercise(*Clero et al. 2015*)
Triglycerides	**Dog**	*Blood*	*Exercise*	●P(EDTA): lower in exercising than sedentary dogs(*Downs et al. 1997*)
Triglycerides	**Dog**	*Blood*	*Exercise*	●P(Hep): ~25% increase after agility test; stable up to 30min later(*Rovira et al. 2007*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(?): not different after 12d fasting(*Lemieux and Plante 1968*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: not different in dogs fed the same food in raw and pasteurized preparations; higher with sterilized preparation(*Cai et al. 2022*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: decreased by 4wk feeding with fish oil and/or medium-chain triglyceridessupplemented diet(*Jackson and Jewell 2023*)
Triglycerides	**Dog**	*Blood*	*Food*	●S(Act): post-prandial increase higher than TEa from 2 to 6 hrs(*Yi et al. 2023*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(EDTA): increased from 1h after meal, peaking at 2h; not back to base at 6h(*Bellanger et al. 2015*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(EDTA): postprandial peak between 3 & 6h; not back to base after 12h in ~40% cases(*Elliott et al. 2011*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: ~30% lower after 24h fasting than after 6 or 12h(*de La Farge et al. 1987*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(?): decreased in obese dogs by high fiber or high protein diets(*Diez et al. 2004*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: mildly lower in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(?): not different after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: not different after 3mth food reduction in obese dogs(*Lucena et al. 2020*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(EDTA): fasting value not different when diet fat content lower; post-prandial peak (~4h) higher when higher diet fat content(*Downs et al. 1997*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(?): post-prandial increase not different when fed each 48h or each 12h(*Romsos et al. 1978*)
Triglycerides	**Dog**	*Blood*	*Food*	●S: increased 1 after high-fat mixed-meal in overweight and lean dogs; still high aftetr 4h; higher increase in overweight dogs(*Soder et al. 2016*)
Triglycerides	**Dog**	*Blood*	*Food*	●P(?): ~twice higher after 6 than 16h fasting(*Matsuzawa and Sakazume 1994*)
Triglycerides	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Triglycerides	**Dog**	*Blood*	*Other biological*	●P(EDTA): ~70% higher in obese than non-obese dogs(*Jeusette et al. 2005*)
Triglycerides	**Dog**	*Blood*	*Other biological*	●S: increased with body score(*Kolodziejski et al. 2021*)
Triglycerides	**Dog**	*Blood*	*Other biological*	●P(?): not correlated with obesity(*Sagawa et al. 2002*)
Triglycerides	**Dog**	*Blood*	*Other biological*	●S: decreased after weight loss in obese dogs(*Tvarijonaviciute et al. 2012*)
Triglycerides	**Dog**	*Blood*	*Other biological*	●S: ~80% higher in obese dogs(*Veiga et al. 2008*)
Triglycerides	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Triglycerides	**Dog**	*Blood*	*Stability*	●S & P(Hep): unchanged if centrifugation delayed up to 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Triglycerides	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Triglycerides	**Dog**	*Blood*	*Stress*	●P(Hep): decreased by stress of drug searching(*Strasser et al. 1993*)
Triglycerides	**Dog**	*Blood*	*Time variability*	●P(Hep): lower in spring(*Strasser et al. 2001*)
Triglycerides	**Dog**	*Blood*	*Time variability*	●S: no circannual variations(*Sothern et al. 1993*)
Triglycerides	**Dog**	*Blood*	*Time variability*	●S: no circadian rhythm in fasted dogs(*Bertolucci et al. 2008*)
Triglycerides	**Dog**	*Blood*	*Transport*	●S: not different after a 1d flight and road transport (*Liang et al. 2018*)
Triglycerides	**Dog**	*Blood*	*Transport*	●S: 600km road transport; fasting; increased at arrival & back to base 2wks after re-housing(*Ochi et al. 2016*)
Triglycerides	**Dog**	*Blood*	*Transport*	●S: not different after long road & air transport(*Ochi et al. 2013*)

Troponin	**Dog**	*Blood*	*Anticoagulant*	●S: sample as P(Hep); in P(Hep) decreased by increasing concentration of heparin temp.(*Oyama and Solter 2004*)
Troponin	**Dog**	*Blood*	*Drugs*	●S: moderately increased in ~15% of anesthetized dogs(*Cilli et al. 2010*)
Troponin	**Dog**	*Blood*	*Drugs*	●S: unchanged after anesthesia+minor surgery(*Saunders et al. 2009*)
Troponin	**Dog**	*Blood*	*Drugs*	●S: cTnI undetectable at end of 12h ketamine anesthesia and up to 48h(*Franco et al. 2018*)
Troponin	**Dog**	*Blood*	*Drugs*	●S: cTnI increased after anesthesia with associations of medetomidine, propofol and sevoflurame; peak about 12h; not back to base on day 4 for all dogs(*Vasiljevic et al. 2018*)
Troponin	**Dog**	*Blood*	*Drugs*	●S: unchanged by sedation with medetomidine+ butorphanol(*Singletary et al. 2010*)
Troponin	**Dog**	*Blood*	*Exercise*	●P(Hep): moderately increased after 1 & 2 days of high-intensity exercise(*Wakshlag et al. 2010*)
Troponin	**Dog**	*Blood*	*Exercise*	●S: increased by 5d endurance sled race(*McKenzie et al. 2007*)
Troponin	**Dog**	*Blood*	*Other biological*	●P(Hep): cTnI not different after 10wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
Troponin	**Dog**	*Blood*	*Food*	●P(Hep): cTnI not different in dogs eating traditioal and non traditional grain-free diets(*Owens et al. 2023*)
Troponin	**Dog**	*Blood*	*Other biological*	●P(EDTA): unchanged up to 10d after ovariohysterectomy; increased for 1d after balloon valvuloplasty, 10d after pacemaker implantation(*Shih et al. 2009*)
Troponin	**Dog**	*Blood*	*Time variability*	●S: increased after oral or IV dosing; no apparent circadian rhythm(*Schultze et al. 2015*)
TSH	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk aspirin 25mg/kg/12h or ketoprofen1mg/kg/d(*Daminet et al. 2003*)
TSH	**Dog**	*Blood*	*Drugs*	●S: ~x2 after 27wk phenobarbital; not back to base after 95wk withdrawal(*Gieger et al. 2000*)
TSH	**Dog**	*Blood*	*Drugs*	●S: progressive increase with trimethoprim-sulfamethoxazole (~x5 after 3wk)(*Frank et al. 2005*)
TSH	**Dog**	*Blood*	*Drugs*	●S: unchanged for up to 112d after clomipramine(*Gulikers and Panciera 2003*)
TSH	**Dog**	*Blood*	*Drugs*	●S: not different after isoflurane anesthesia ± laparotomy(*Wood et al. 2009*)
TSH	**Dog**	*Blood*	*Exercise*	●S: not different in trained & untrained whippets(*van Geffen et al. 2006*)
TSH	**Dog**	*Blood*	*Exercise*	●S: decreased by training of sled dogs(*Krogh et al. 2014*)
TSH	**Dog**	*Blood*	*Exercise*	●S: ~50 increase by training in sled dogs(*Evason et al. 2004*)
TSH	**Dog**	*Blood*	*Food*	●P(Hep): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
TSH	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Kirkegaard et al. 2011, Sonne et al. 2008*)
TSH	**Dog**	*Blood*	*Food*	●S: increased when fed excess iodine(*Castillo et al. 2001*)
Urate	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*Leard et al. 1990*)
Urate	**Dog**	*Blood*	*Colour*	●P(EDTA)&S: increased in lipemic specimens(*Bonatto et al. 2021*)
Urate	**Dog**	*Blood*	*Drugs*	●P(Hep): not different after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Urate	**Dog**	*Blood*	*Exercise*	●P(EDTA): moderate increase 30min after race in Greyhounds(*Snow et al. 1988*)
Urate	**Dog**	*Blood*	*Exercise*	●S: ~unchanged during long distance sled race(*Hinchcliff et al. 1993*)
Urate	**Dog**	*Blood*	*Exercise*	●S: increased after strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
Urate	**Dog**	*Blood*	*Exercise*	●S: increased after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Urate	**Dog**	*Blood*	*Food*	●P(?): not different after 12d fasting(*Lemieux and Plante 1968*)
Urate	**Dog**	*Blood*	*Time variability*	●S: circannual acrophase in September-October(*Sothern et al. 1993*)
Urate	**Dog**	*Blood*	*Transport*	●S: not different after a 1d flight and road transport; decreased on the following days(*Liang et al. 2018*)
Urate	**Dog**	*Urine*	*Food*	●dU: not different after 12d fasting(*Lemieux and Plante 1968*)
Urate	**Dog**	*Urine*	*Stability*	●U: more stable in 1: 10-1: 20 diluted urine stored at -20°C; strongly decreased in undiluted urine(*Bartges et al. 1996*)
Urate	**Dog**	*Urine*	*Stability*	●dU: decreased ~20% after 24h fasting(*Lulich et al. 1991*)
Urea	**Dog**	*Blood*	*Anticoagulant*	●S: ~same as P(Hep), P(EDTA), P(Fl), higher than P(Cit)(*Ceron et al. 2004*)
Urea	**Dog**	*Blood*	*Anticoagulant*	●P(CTAD): lower than P(Hep)(*Granat et al. 2017*)

Urea	**Dog**	*Blood*	*Anticoagulant*	●S & P(Hep): same results(*Thoresen et al. 1992*)
Urea	**Dog**	*Blood*	*Colour*	●S: <15% change by bilirubin up to 600mg/L, Hb up to 4g/L; decreased by TG(*Jacobs et al. 1992*)
Urea	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*Leard et al. 1990*)
Urea	**Dog**	*Blood*	*Colour*	●S: no bias in hyperlipidemic specimens (dry chemistry); not different after high speed centrifugation; increased by LipoClear(*Azevedo et al. 2019, O'Neill and Feldman 1989*)
Urea	**Dog**	*Blood*	*Colour*	●P(EDTA): increased by hemolysis(*Agudelo et al. 2014*)
Urea	**Dog**	*Blood*	*Colour*	●S: unchanged by hemolysis(*O'Neill and Feldman 1989*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different after 4d following IV administration of 0.8, 4 and 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
Urea	**Dog**	*Blood*	*Drugs*	●P(Hep): unchanged 1d after carprofen or meloxicam + anesthesia with ketamine+diazepam(*Crandell et al. 2004*)
Urea	**Dog**	*Blood*	*Drugs*	●S: unchanged for 2 days after halothane anesthesia +ovariohysterectomy(*Lobetti and Lambrechts 2000*)
Urea	**Dog**	*Blood*	*Drugs*	●S: increased by 8wk high dose trimethoprim+sulfadiazine(*Lording and Bellamy 1978*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different after treatment by torsemide or furosemide(*Potter et al. 2019*)
Urea	**Dog**	*Blood*	*Drugs*	●S/P(?): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
Urea	**Dog**	*Blood*	*Drugs*	●P(Hep): moderate transient decrease after 4mg/kg methylprednisolone(*Braun et al. 1981*)
Urea	**Dog**	*Blood*	*Drugs*	●P(Hep): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different up to 2d after halothane anesthesia & elective surgery(*Lobetti and Lambrechts 2000*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different 1d after exercise in Greyhounds(*Lucas et al. 2015*)
Urea	**Dog**	*Blood*	*Drugs*	●P(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different after 14d 1mg/kg per day prednisone(*Masters et al. 2018*)
Urea	**Dog**	*Blood*	*Drugs*	●S: unchanged by 5d-carprofen treatment & 1 wk later(*Hickford et al. 2001*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
Urea	**Dog**	*Blood*	*Drugs*	●P(Hep): ~15 or 50% increase after 2wk furosemide or torsemide(*Hori et al. 2007*)
Urea	**Dog**	*Blood*	*Drugs*	●B(Hep): unchanged after furosemide & azosemide(*Hori et al. 2008*)
Urea	**Dog**	*Blood*	*Drugs*	●S: ~: 2 after charcoal/propylene glycol/glycerol; not back to base after24h(*Burkitt et al. 2005*)
Urea	**Dog**	*Blood*	*Drugs*	●P(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different 1mth after ionic-iodinated , nonionic-iodinated & gadolinium dimeglumine contrast media(*Pollard et al. 2008*)
Urea	**Dog**	*Blood*	*Drugs*	●S: unchanged after 16wk hydrocortisone(*Smets et al. 2012*)
Urea	**Dog**	*Blood*	*Drugs*	●S: not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
Urea	**Dog**	*Blood*	*Drugs*	●S: ~not different after 2 iohexol injections at 6-8wk interval(*Kirberger et al. 2012*)
Urea	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Urea	**Dog**	*Blood*	*Exercise*	●S: decreased by 5d endurance sled race(*McKenzie et al. 2007*)
Urea	**Dog**	*Blood*	*Exercise*	●P(Hep): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
Urea	**Dog**	*Blood*	*Exercise*	●S: ~unchanged by anticipation and after short-duration intense exercise(*Angle et al. 2009*)
Urea	**Dog**	*Blood*	*Food*	●P(Hep): x2.5 after meal; still x1.5/x2 12h after meal(*Watson et al. 1981*)
Urea	**Dog**	*Blood*	*Food*	●P(Hep) & U: ~x2 after 10g/kg meat meal(*O'Connor and Summerill 1976*)
Urea	**Dog**	*Blood*	*Food*	●S: protein intake proportional increase after meal(*Anderson and Edney 1969*)
Urea	**Dog**	*Blood*	*Food*	●S(Act): post-prandial increase higher than TEa peaking 4h after meal(*Yi et al. 2023*)
Urea	**Dog**	*Blood*	*Food*	●P(Hep): x1.5-2 after meal of commercial food(*Epstein et al. 1984*)
Urea	**Dog**	*Blood*	*Food*	●P(Hep): ~+70% 4h after meal of dry food(*Evans 1987*)
Urea	**Dog**	*Blood*	*Food*	●S: not different in dogs living in low alimentary & sanitary conditions than in kenneled police dogs (*Rautenbach 1988*)

Urea	**Dog**	*Blood*	*Food*	●S: strong increase starting 0.5h after meat meal, lasting >8h(*Vogin et al. 1967*)
Urea	**Dog**	*Blood*	*Food*	●S: intense increase lasting up to 6-8h in young dogs (3-6 mth) and up to 16 h in older ones (1-5 yr); more intense in males than in females(*Street et al. 1968*)
Urea	**Dog**	*Blood*	*Food*	●P(Hep): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
Urea	**Dog**	*Blood*	*Food*	●P(?): not different after 2wk feeding a high fat high cholesterol diet(*Kakimoto et al. 2017*)
Urea	**Dog**	*Blood*	*Food*	●S: not different after 6 and 12wk low-calorie feeding in overweight dogs(*Vitger et al. 2017*)
Urea	**Dog**	*Blood*	*Food*	●S: not different after 7 or 15d phytosterols administration(*Borin-Crivellenti et al. 2021*)
Urea	**Dog**	*Blood*	*Food*	●S: decreased by low protein- low phosphate diet(*Polzin et al. 1991*)
Urea	**Dog**	*Blood*	*Food*	●S: not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
Urea	**Dog**	*Blood*	*Food*	●P(EDTA): post-prandial increase little influenced by type of food and feeding schedule(*Brambillasca et al. 2010*)
Urea	**Dog**	*Blood*	*Food*	●S: mild increase during long distance sled race(*Hinchcliff et al. 1993*)
Urea	**Dog**	*Blood*	*Food*	●S: mildly higher in life-long diet-restrictced Labradors(*Lawler et al. 2007*)
Urea	**Dog**	*Blood*	*Food*	●P(Hep): not different in sled dogs fed organohalogen contaminated whale blubber or pork fat(*Sonne et al. 2008*)
Urea	**Dog**	*Blood*	*Food*	●S: not different when fed a plant-based & an animal product-based diet(*Swanson et al. 2004*)
Urea	**Dog**	*Blood*	*Food*	●S: increased in 30% of cases of starvation(*Pointer et al. 2013*)
Urea	**Dog**	*Blood*	*Food*	●P(?): mildly decreased by prolonged fasting(*Brady et al. 1977*)
Urea	**Dog**	*Blood*	*Food*	●S: not different in 3h post-prandial specimens and 12h fasting specimens collected at the same hour(*Oliveira et al. 2020*)
Urea	**Dog**	*Blood*	*Food*	●P(?): post-prandial increase more intense when fed each 48h than each 12h(*Romsos et al. 1978*)
Urea	**Dog**	*Blood*	*Food*	●P(?): ~twice higher after 6 than 16h fasting(*Matsuzawa and Sakazume 1994*)
Urea	**Dog**	*Blood*	*Food*	●S: increased after food restriction(*Takamatsu et al. 2015*)
Urea	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
Urea	**Dog**	*Blood*	*Other biological*	●P(Hep): 75% increase from 5wk exposure to electromagnetic radiations from mobile phone(*Dong et al. 2022*)
Urea	**Dog**	*Blood*	*Other biological*	●P(Hep): same in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
Urea	**Dog**	*Blood*	*Other biological*	●P(?): not different in dogs>10 yr-old and 2-5 yr-old(*Aguilera-Tejero et al. 1998*)
Urea	**Dog**	*Blood*	*Other biological*	●P(EDTA): unchanged after race in Greyhounds(*Snow et al. 1988*)
Urea	**Dog**	*Blood*	*Other biological*	●S: not different in normal weight, overweight and obese dogs(*Forster et al. 2018*)
Urea	**Dog**	*Blood*	*Other biological*	●P(EDTA): lower in obese and lean dogs(*Barić Rafaj et al. 2017*)
Urea	**Dog**	*Blood*	*Other biological*	●P(?): no change by diet or weight loss in obese dogs(*Diez et al. 2004*)
Urea	**Dog**	*Blood*	*Other biological*	●S: mildly increased by weight loss in obese dogs(*Tvarijonaviciute et al. 2013*)
Urea	**Dog**	*Blood*	*Other technical*	●S: 20h fasting; not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles; except cyclodextrin on day 1(*Ruble et al. 2006*)
Urea	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in standard and microtubes(*Whittemore and Flatland 2010*)
Urea	**Dog**	*Blood*	*Other technical*	●P(Hep): same results in expired and non expired tubes up to 11mth(*Domingos et al. 2012*)
Urea	**Dog**	*Blood*	*Sampling*	●S(Act): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 5 & 7 % differences >TEa(*Guarino et al. 2022*)
Urea	**Dog**	*Blood*	*Sampling*	●P(Hep): lower in jugular blood than bone marrow specimens(*Ackert et al. 2019*)
Urea	**Dog**	*Blood*	*Stability*	●S: changes <10% for 4d at 4°C, room temp & after 2d post transport(*Fontaine et al. 1986*)
Urea	**Dog**	*Blood*	*Stability*	●P(Hep): not different after up to 3 freeze-thaw cycles(*Reynolds et al. 2006*)
Urea	**Dog**	*Blood*	*Stability*	●S & P(Hep): unchanged if centrifugation delayed up to 3d; stable 3d in separated S or P(Hep)(*Thoresen et al. 1992*)
Urea	**Dog**	*Blood*	*Stability*	●S & P(Hep): not clinically different after up to 8mth storage at -20 & -70°C(*Thoresen et al. 1995*)
Urea	**Dog**	*Blood*	*Stress*	●P(Hep): no effect of stress by drug searching(*Strasser et al. 1993*)

Urea	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Urea	**Dog**	*Blood*	*Transport*	●S: not different after a 1d flight and road transport; decreased on the following days(*Liang et al. 2018*)
Vasopressin	**Dog**	*Blood*	*Drugs*	●P(Hep): decreased by demetomidine(*Ribeiro Villela et al. 2005*)
Vasopressin	**Dog**	*Blood*	*Drugs*	●P(EDTA+aprotinin): increased after xylazine(*Talukder et al. 2009*)
Vasopressin	**Dog**	*Blood*	*Drugs*	●P(EDTA+aprotinin): mildly increased by xylazine or medetomidine(*Talukder and Hikasa 2009*)
Vasopressin	**Dog**	*Saliva*	*Stress*	●Saliva: decreased noise stress(*Jeong et al. 2020*)
Vasopressin	**Dog**	*Urine*	*Drugs*	●U: mildly decreased after xylazine(*Talukder et al. 2009*)
Vasopressin	**Dog**	*Urine*	*Drugs*	●U: mildly decreased by xylazine or medetomidine(*Talukder and Hikasa 2009*)
Vasopressin	**Dog**	*Urine*	*Drugs*	●U: decreased by medetomidine(*Talukder et al. 2009*)
Vitamin A	**Dog**	*Blood*	*Exercise*	●P(Hep): ~not changed by mild intensity endurance exercise(*Clero et al. 2015*)
Vitamin C	**Dog**	*Blood*	*Anticoagulant*	●P(Hep) & P(EDTA): same results(*Wang et al. 2001*)
Vitamin C	**Dog**	*Blood*	*Other biological*	●P(Hep): same in males & females; same in Germann Shepherds & Labradors; ~10% decrease between 2 and 10 yr-old(*Wang et al. 2001*)
Vitamin D	**Dog**	*Blood*	*Drugs*	●S: calci-diol & -triol not different after 7wk prednisolone(*Kovalik et al. 2012*)
Vitamin D	**Dog**	*Blood*	*Exercise*	●P(Hep): calcidiol moderately increased during endurance race; calcitriol not different(*Spoo et al. 2015*)
Vitamin D	**Dog**	*Blood*	*Exercise*	●S: increased after 7km race of Greyhounds(*Tharwat et al. 2014*)
Vitamin D	**Dog**	*Blood*	*Food*	●P(EDTA): calcidiol not different with type of food(*Alizadeh et al. 2022*)
Vitamin D	**Dog**	*Blood*	*Housing*	●P(EDTA): calcidiol not different in outdoors and indoors living dogs(*Alizadeh et al. 2022*)
Vitamin D	**Dog**	*Blood*	*Other biological*	●S: calcidiol decreased on day following knee surgery; back to base 2mth later(*Clements et al. 1995*)
Vitamin D	**Dog**	*Blood*	*Other biological*	●P(?): calcitriol not different in dogs>10 yr-old and 2-5 yr-old(*Aguilera-Tejero et al. 1998*)
Vitamin D	**Dog**	*Blood*	*Other biological*	●P(?): calcitriol not different in dogs>10 yr-old and 2-5 yr-old(*Aguilera-Tejero et al. 1998*)
Vitamin D	**Dog**	*Blood*	*Time variability*	●S: no seasonal effect for calcidiol and calcitriol in Scotland(*Hurst et al. 2020*)
Vitamin E	**Dog**	*Blood*	*Exercise*	●P(Hep): mildly decreased after strenuous exercise in sled dogs(*Hinchcliff et al. 2000*)
Vitamin E	**Dog**	*Blood*	*Exercise*	●P(Hep): ~not changed by mild intensity endurance exercise(*Clero et al. 2015*)
Vitamin E	**Dog**	*Blood*	*Exercise*	●S: not different after 4h fieldwork of rescue dogs(*Spoo et al. 2015*)
Vitamin E	**Dog**	*Blood*	*Food*	●S: higher from 3mth in dogs fed diet enriched with protein, calcium, n-3 fatty acids & antioxidants(*Schoenherr et al. 2010*)
vonW factor	**Dog**	*Blood*	*Exercise*	●P(Cit): increased after physical exercise(*Moesgaard et al. 2007*)
vonW factor	**Dog**	*Blood*	*Exercise*	●P(Cit): miildly decreased by training of sled dogs(*Krogh et al. 2014*)
vonW factor	**Dog**	*Blood*	*Other technical*	●P(Cit): same results with 3.2 & 3.8% citrate(*Morales et al. 2007*)
vonW factor	**Dog**	*Blood*	*Stability*	●B(Cit) & P(Cit): decrease over 2d at 4°C, stable at 20°C(*Johnstone et al. 1991*)
vonW factor	**Dog**	*Blood*	*Stability*	● P(Cit): ~not different after 1d at 4 or 20°C; increased in B(Cit)(*Mansell and Parry 1991*)
vonW factor	**Dog**	*Blood*	*Stability*	●P(Cit): same results if centrifuged after 3h at room temp or 4°C(*Marin et al. 2008*)
vonW factor	**Dog**	*Blood*	*Stability*	●P(Cit): same results if centrifuged after 3h at room temp or 4°C(*Marin et al. 2008*)
vonW factor	**Dog**	*Blood*	*Time variability*	●P(Cit): no circadian rhythm(*Marin et al. 2008*)
WBC	**Dog**	*BAL*	*Sampling*	●BAL: differential not different from right or left lung(*Vail et al. 1995*)
WBC	**Dog**	*BAL*	*Sampling*	●BAL: not different in 5 consecutive boluses(*Hawkins and Berry 1999*)
WBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA), B(Cit), B(Hep) same results(*Bauer et al. 2012*)
WBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA) & B(CTAD): ~not diferent(*Granat et al. 2017*)
WBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): higher than in B(CTAD)(*Norman et al. 2001*)
WBC	**Dog**	*Blood*	*Anticoagulant*	●B(EDTA): mildly higher than B(Cit)(*Stokol and Erb 2007*)

WBC	**Dog**	*Blood*	*Colour*	●B(EDTA): unchanged by hemolysis(*O'Neill and Feldman 1989*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): no effect of low-dose ketamine(*DeClue et al. 2008*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 6 mths daily oral robenacoxid administration (2 to 10 mg/kg)(*Toutain et al. 2018*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different for up to 4d following IV administration of 0.8, 4 & 8 x 10^{10}/kg BW platelet-like nanoparticles(*Guillaumin et al. 2022*)
WBC	**Dog**	*Blood*	*Drugs*	●B(?): not different 24h after IV 10 & 20 mg/kg acetaminophen(*Serrano-Rodriguez et al. 2019*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): peak increase 12h after ovariohysterectomy (x2.5): not back to base on day 5; unchanged by carprofen or meloxicam(*Kum et al. 2013*)
WBC	**Dog**	*Blood*	*Drugs*	●B(Hep): increased on day 1 then decreased after 4mg/kg methylprednisolone(*Braun et al. 1981*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not changed by ototopical dexamethasone(*Abraham et al. 2005*)
WBC	**Dog**	*Blood*	*Drugs*	●B(?): progressive decrease (max 1h) after 0.07 mg/kg acepromazine(*Lang et al. 1979*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 7d aspirin (2x10 mg/kg), carprofen (4.4 mg/kg), deracoxib(2 mg/kg) or meloxicam (0.1 mg/kg)(*Blois et al. 2010*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): decreased from 30 min after induction of anesthesia by propofol with & without tramadol; then stable for 1h(*Costa et al. 2013*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after 1wk 2mg/kg atorvastatine(*Bonaparte et al. 2019*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different after surgery in exposed & in non exposed dogs to a synthetic appeasing pheromone (*Siracusa et al. 2010*)
WBC	**Dog**	*Blood*	*Drugs*	●B(EDTA): not different up to 6d after 7.5 ml/kg Hb-glutamer(*Kerl and Langdon 2007*)
WBC	**Dog**	*Blood*	*Drugs*	●B(?): ~not different during after medetomidine-propofol-isoflurane anesthesia; no effect of carprofen pretreatment; increased 7d later(*Frendin et al. 2006*)
WBC	**Dog**	*Blood*	*Drugs*	●B(?): not different after 30d ketoprofen 0.25 mg/kg/d(*Narita et al. 2006*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 3h-hunting(*Casella et al. 2013*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): ~not different after race(*Horvath et al. 2014*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): increased immediately and 30min after race in Greyhounds(*Snow et al. 1988*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different in dogs trained for long distance aerobic effort and non runners(*Arokoski et al. 1993*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): 15% higher 1d after exercise in Greyhounds(*Lucas et al. 2015*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different after 13min submaximal exercise(*Bauer et al. 2012*)
WBC	**Dog**	*Blood*	*Exercise*	●B: unchanged by treadmill moderate exercise(*Piccione et al. 2012*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): higher in working than pet Border Collies(*Downs et al. 1997*)
WBC	**Dog**	*Blood*	*Exercise*	●B(?): not different after 7km race of Greyhounds(*Tharwat et al. 2014*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different up to 30 min after agility test(*Rovira et al. 2007*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): not different immediately and 4h after agility test(*Baltzer et al. 2012*)
WBC	**Dog**	*Blood*	*Exercise*	●B(EDTA): mildly increased by training of sled dogs(*Davis et al. 2008*)
WBC	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed the same food in raw, pasteurized and sterilized preparations(*Cai et al. 2022*)
WBC	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs fed a raw meat based diet or an extruded kibble diet(*Hiney et al. 2021*)
WBC	**Dog**	*Blood*	*Food*	●B(EDTA): not different after 20wk feeding a nonprocessed high-fat or a heat-processed high carbohydrate diet(*Anturaniemi et al. 2020*)
WBC	**Dog**	*Blood*	*Food*	●B(?): decreased by food restriction(*Takamatsu et al. 2015*)
WBC	**Dog**	*Blood*	*Food*	●B(EDTA): not different in dogs living in low alimentary & sanitary conditions and in kenneled police dogs(*Rautenbach et al. 1987*)
WBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in normal weight and mildly to moderately overweight dogs(*Vieira et al. 2022*)
WBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different after 5wk exposure to electromagnetic radiations from mobile phone; decreased on 10th wk(*Dong et al. 2022*)
WBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): increase peaking 24hrs after ovariohysterectomy surgery; back to baseon day 7(*Tavares et al. 2023*)
WBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): higher in laboratory dogs housed indoors or in outdoor kennels(*Spangenberg et al. 2006*)
WBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): not different in obese and lean dogs(*Barić Rafaj et al. 2017*)
WBC	**Dog**	*Blood*	*Other biological*	●B(EDTA): mildly increased after repeated blood donations(*Ferreira et al. 2014*)

WBC	**Dog**	*Blood*	*Other technical*	●B(?): 20h fasting; total and differential counts not different from saline a short time, 1d & 7d after IV 1mL/kg 7 different IV vehicles(*Ruble et al. 2006*)
WBC	**Dog**	*Blood*	*Other technical*	●B(EDTA): not different in specimens pre-heated for 5min at 37°C(*Williams and Archer 2016*)
WBC	**Dog**	*Blood*	*Other technical*	●B(EDTA): same results in standard and microtubes(*Whittemore and Flatland 2010*)
WBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): same in jugular and cephalic vein(*Jensen et al. 1994*)
WBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): lower in specimens from jugular vein than cephalic and lateral saphenous veins(*An et al. 2019*)
WBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): ~20% lower in arterial than venous specimen(*Palsgaard-Van Lue et al. 2007*)
WBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): mildly lower from vacuum tube in jugular vein than capillary tube in cephalic vein(*Reynolds et al. 2008*)
WBC	**Dog**	*Blood*	*Sampling*	●B(EDTA): not clinically different in specimens from direct venipuncture and indwelling catheter inserted freshly or 24h before; 4 & 4% differences >TEa(*Guarino et al. 2022*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): irregular effect of transport and storage (±20%) according to laboratory for 24h at 4-10°C(*Hayashi et al. 1995*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): increased at room temp, 4°C & after 2d post transport(*Fontaine et al. 1986*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): irregular changes mostly increased at room temp for up to 2d(*Medaille et al. 2006*)
WBC	**Dog**	*Blood*	*Stability*	●P(EDTA): increased after 3d in mailing conditions(*Grenn et al. 1976*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from 12h at 4&25°C(*Pastor et al. 1997*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA K2) and B(EDTA Na): less than 2SD difference after 4d; more stable than EDTA K3 and B(Hep) : 54hrs; differential stable 12hrs in EDTA K2(*Falconer and Chapman 1977*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2.5d at 4°C; decreased at 2.5d at room temp(*Athanasiou et al. 2016*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): decreased from 24h at room temp(*Prins et al. 2009*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2.5d at 4°C; decreased from 48h at room temp(*Furlanello et al. 2006*)
WBC	**Dog**	*Blood*	*Stability*	●B(EDTA): stable up to 2d at room temp(*Bourges-Abella et al. 2013*)
WBC	**Dog**	*Blood*	*Stress*	●P(Hep): higher on day 10 than at entrance in shelter; no effect of daily 30 min petting sessions(*Dudley et al. 2015*)
WBC	**Dog**	*Blood*	*Stress*	●B(EDTA): no effect of stress by drug searching(*Strasser et al. 1993*)
WBC	**Dog**	*Blood*	*Time variability*	●B(EDTA): lower at 7am; peak ~20% higher at 7pm(*Lilliehook 1997*)
WBC	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher at end of afternoon than end of night(*Widenhorn et al. 2011*)
WBC	**Dog**	*Blood*	*Time variability*	●B(EDTA): higher in autumn(*Strasser et al. 2001*)
WBC	**Dog**	*Blood*	*Time variability*	●B(?): circannual acrophase in July-September(*Sothern et al. 1993*)
WBC	**Dog**	*Blood*	*Time variability*	●B(EDTA): unchanged by repeated blood sampling (15% blood volume) over 4wk(*Ooms et al. 2004*)
WBC	**Dog**	*Blood*	*Transport*	●B(EDTA): increased by road & air transport(*Bergeron et al. 2002*)
WBC	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after a 1d flight and road transport; increased on the following days(*Liang et al. 2018*)
WBC	**Dog**	*Blood*	*Transport*	●B(EDTA): increased after a 3h-road transport; back to base 6h later(*Fazio et al. 2015*)
WBC	**Dog**	*Blood*	*Transport*	●B(EDTA): not different after long road & air transport(*Ochi et al. 2013*)
WBC	**Dog**	*CSF*	*Colour*	●CSF: not changed by mild iatrogenic blood contamination (<13000RBC/µL)(*Hurtt and Smith 1997*)
WBC	**Dog**	*CSF*	*Sampling*	●CSF: ~three times higher in atlanto-occipital than lumbar specimens(*Bailey and Higgins 1985*)
WBC	**Dog**	*Synovia*	*Sampling*	●Synovia: differential count varies with joint(*Fernandez et al. 1983*)
Xylose absorption	**Dog**	*Blood*	*Colour*	●S: mildly lower in hemolysed specimens(*Nix et al. 1993*)
Xylose absorption	**Dog**	*Blood*	*Other technical*	●S: no effect of concentration (5%, lo%, and 20%) or dosage (250, 500, & 750 mglkg) on time of peak(*Nix et al. 1993*)
Zinc	**Dog**	*Blood*	*Time variability*	●P(Hep): no influence of season(*Strasser et al. 2001*)
Zinc	**Dog**	*Hair*	*Food*	●Hair: higher in dogs fed raw than mixed or dry diets(*Rosendahl et al. 2022*)
Zinc	**Dog**	*Prostatic fluid*	*Stability*	●PrFl: not different after 7d at -18°C(*Umbach et al. 2019*)

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