ROSSDALES LABORATORIES

REFERENCE RANGES

2 YEAR-OLD THOROUGHBRED HORSES IN TRAINING

Clinical Pathology Reference Ranges – Means & Ranges

Test	Abbreviation	Units	Mean	Range
Total erythrocytes	RBC	$x10^{12}/l$	10.2	8.7-11.7
Packed cell volume	PCV	l/l	0.40	0.34-0.45
Haemoglobin	Hb	g/dl	15.0	12.8-16.6
Mean cell volume	MCV	fl	39.9	37.0-42.1
Mean cell haemoglobin concentration	McHc	g/dl	36.8	35.9-37.9
Mean cell haemoglobin	McH	pg	14.7	13.7-15.7
Total leucocytes	WBC	$x10^9/l$	9.6	7.3-12.7
Segmented neutrophils	Segs	$x10^9/l$	5.1	4.0-6.0
	Segs	%	53	42-63
Lymphocytes	Lymphs	$x10^9/l$	3.6	2.7-4.4
	Lymphs	%	38	28-46
Monocytes	Monos	$x10^9/l$	0.4	0.26-0.56
	Monos	%	4	2-6
Eosinophils	Eos	$x10^9/l$	0.2	0-0.3
	Eos	%	2	1-3
Platelets	Plts	$x10^9/l$	170	127-206
Plasma viscosity	PV	mPa	1.45	1.35-1.55
Total Protein	TSP	g/l	62	59-66
Albumin	Alb	g/l	37	35-39
Globulin	Glob	g/l	25	21-28
Alpha 1 globulin	x1 glob	g/l	1.1	0.6-1.4
Alpha 2 globulin	x2 glob	g/l	6.6	5.4-7.8
Beta 1 globulin	x1 glob	g/l	6.9	5.7-8.5
Beta 2 globulin	x2 glob	g/l	4.2	1.8-6.8
Gamma globulin	xglob	g/l	5.6	3.7-8.2
Plasma fibrinogen	Fib	g/l	1.9	1.5-2.3
Serum amyloid A	SAA	mg/l	1.3	0-20
Aspartate amino transferase	AST	iu/l	545	308-820
Creatinine kinase	CK	iu/l	354	166-572
Lactate dehydrogenase	LD	iu/l	793	569-917
LD isoenzyme 1	LD1	% total LD	10	7-12
LD isoenzyme 2	LD2	% total LD	28	24-34
LD isoenzyme 3	LD3	% total LD	40	35-44
LD isoenzyme 4	LD4	% total LD	17	11-23
LD isoenzyme 5	LD5	% total LD	5	1-10
Gamma glutamyl transferase	GGT	iu/l	24	12-40
Glutamate dehydrogenase	GLDH	iu/l	10	4-11

Test	Abbreviation	Units	Mean	Range
Serum alkaline phosphatase	SAP	iu/l	452	293-672
Intestinal alkaline phosphatase	IAP	iu/l	109	64-171
	IAP	% total SAP	23.2	<25
Urea	Urea	mmol/l	4.8	3.8-6.0
Creatinine	Creat	µmol/l	134	110-160
Bromsulphalein half time clearance	BSP	Seconds	168	138-198
Glucose	Glu	mmol/l	4.7	3.4-5.9
Total bilirubin	TBili	µmol/l	26	13-39
Direct bilirubin	DBili	µmol/l	10	4-15
Bile acids	BAcids	µmol/l	4.6	0-8.0
Cholesterol	Chol	mmol/l	2.45	2.0-3.3
Triglycerides	Trigs	mmol/l	1.06	0.26-2.6
Lipase	Lip	mmol/l	42.5	23.8-124.5
Amylase	Amyl	iu/l	8.9	3.3-22.1
Calcium	Ca	mmol/l	3.1	2.9-3.3
Fractional urinary clearance	Ca	%	6.2	2.6-15.5
Phosphate	PO4	mmol/l	1.4	1.1-1.6
Fractional urinary clearance	PO4	%	0.3	0.02-0.53
Magnesium	Mg	mmol/l	0.8	0.6-0.9
Fractional urinary clearance	Mg	%	11.7	3.8-21.9
Copper (serum)	Cu	µmol/l	17.1	13.5-20.3
Copper (plasma)	Cu	µmol/l		
Zinc	Zn	µmol/l		
Sodium	Na	mmol/l	136	130-142
Fractional urinary clearance	Na	%	0.04	0.02-1.0
Potassium	K	mmol/l	3.6	2.8-4.2
Fractional urinary clearance	K	%	29.7	15-65
Chloride	Cl	mmol/l	102	95-107
Fractional urinary clearance	Cl	%	0.86	0.04-1.6
Cortisol	Cort	nmol/l	136	71-240
Fasting Insulin	Ins	µiu/ml	25.5	8.0-47.5
Tri-iodothyronine	T3	nmol/l	1.0	0.48-1.46
Thyroxine	T4	nmol/l	22.7	7.7-42.8
Troponin	cTnI	ng/ml	0.19	0.10-0.36
Selenium	Se	µmol/l	3.5	1.6-5.3

© Copyright 2016 Rossdales. All rights reserved.

All information is copyright of Rossdales and may be amended/updated at any time.
Please refer to our website for the latest information. **www.rossdales.com**